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Rajendra Chola's Raid on Sri Vijaya in A. D. 1025 Study of the Political and Economic Dimensions of the Plunder Dynamic in Eleventh Century Tamilnadu

by

Venkata Raghotham

Past historical scholarship has viewed Rajendra Chola's raid on Sri Vijaya in A.D.1025 as either an attempt at the political domination of the Malayan Peninsula, or as a punitive expedition to protect the interests of the Tamil merchants trading with China. Such views, grossly simplistic as they are, have become part of conventional historiography, and have not been seriously questioned until recently. A fresh examination of the source material analyzed in the light of Eisenstad's formulations suggests that the raid was merely symptomatic of the resource management system that evolved in the Tamil country.[1] Raids and military expeditions of a predatory nature served a dual purpose. Firstly, in a polity which was highly decentralized and where sovereignty was shared by several segments of the state, each having a fair degree of autonomy within its own sphere, the ruler was compelled by the logic of existing politico-economic institutions to formulate and execute goals that would serve to strengthen the position of the dominant political authority. This meant, in effect, that the ruler could pursue autonomous political objectives by manipulating existing institutions and by displaying initiative. Secondly, as Chola state system was based on a very slender agrarian base, which was constantly being eroded by the grant of eleemosynary land tenure to brahmans and temples, both of which enjoyed a number of fiscal privileges which included exemption from taxation, long distance raiding served to expand "free floating resources" available to the court.[2]

The Chola presence in Sri Vijaya has largely been seen in the context of Tamil trade with China through the Straits of Malacca, underlying the writing of scholars like Nilakanta Sastri, Paul Wheatley, Wolters, and Majumdar is the assumption that the Chola political and economic system was structurally capable of acting in the interest of the Tamil merchant guilds which controlled the trade between the Coromandel Coast and China.[3] Another facet to this hypothesis is the belief that the Sri Vijayan Empire was a powerful maritime state with a well developed urban/hinterland continuum and commanding vast areas of agricultural land from which the surplus to sustain a merchant dominated society could be generated. Wolters, who views Sri Vijaya as a classic example of a maritime state, describes it as a "...federation of trading ports on

the fringe of large areas of forests... Sri Vijaya was not a state with territorial boundaries, but a series of interlocked human relationships among harbour principalities and pirate lairs based on patronage, loyalty and power".[4] Whereas this analysis is fairly consistent with the source material, Wolters' hypothesis that the Sri Vijayan economy was sustained a vigorous participation in the trade nexes of Southeast Asia and hence commercial rivalry between them and the Cholas of the Tamil Coast existed appears unjustified. The archaeological excavations in Sumatra have shown no evidence of material prosperity in Sri Vijayan Sites.[5] The absence of urban sites along the coast of Western Sumatra and Malaysia together with the poverty of epigraphs testifying to widespread commercial links and the almost negligible traces of monumental architecture lends credence to the view that the importance of Sri Vijaya as a socio-economic entity has been overrated. It is significant that Sri Vijayan archaeology has not produced a single monument comparable to Angkor Wat, and the site of the ancient capital near Palembang has not revealed any trace of widespread commerce. Although it may be argued that the Sri Vijayan system was run in a way that could dispense with the statues, temples, and other ceremonial constructions which are a feature of premedieval Southeast Asian statecraft, it may be pointed out that the Sri Vijayan epigraphs, of which the Telagu Batu inscription is the most elaborate, contain definite influence of the Sanskrit model of kingship and hence the other concomitant elements were probably present.[6] The absence of such elements may indicate that the hitherto accepted notions of Sri Vijayan history need drastic revision.

The origins of Sri Vijaya are lost in the mists of times. By the end of the tenth century Sri Vijaya had consolidated its position in the heartland of central Sumatra around Palembang and had succeeded in gaining control over both sides of the Sunda Straits. In the north it established a tenuous control over the Straits of Malacca. The Chinese records suggest that China granted the status of an important tributary state to Sri Vijaya in recognition of the fact that, with the acquisition of control over the Straits of Malacca and Sunda, the Sri Vijayan state controlled the major entrepots to the South China Sea.[7] It has been postulated that from this point onwards Sri Vijaya started undermining the interests of Tamil merchants leading to Rajendra Chola's raid of A.D. 1025.[8]

The Chola economy was predominantly agrarian. Trade, both internal and foreign, was peripheral to the economic system. Trade was not controlled by the Chola state but was in the hands of merchant guilds, of which the Manigramam of Kodambalur and Valanjiyar of Tiruppurambiam were the most noteworthy. The epigraphs of the period reveal that the trade which these corporations carried out was within the framework of the Periyanadu assemblies. Powerful as these assemblies appear to be, they are to be viewed as a part of the process of agrarian integration that was set in motion during the early part of the fifth century. The disappearance of such organizations during the fourteenth century, followed by the drying up of commercial contact with Malaysia which was not resumed until the early nineteenth century, can be traced to the change in the agrarian system brought about by the destruction of the "nuclear areas" with the advent of the Vijayanagar Empire. With trade and the agrarian linked to each other, it follows that the earlier belief that the trade of early medieval Tamil country was independent of the agrarian economy needs to be reconsidered. Burton Stein has rightly observed, "Vigorous and powerful as they appear to be, the medieval trade organiza-

tions must be seen as essentially integrated within the principal forms of social and economic organization of medieval South India in general and Coromandel in particular".[9]

There are certain other pointers to indicate that the maritime bias attributed to Sri Vijaya needs reconsideration. The vast eastern coastal plains of Sumatra, which have been described as "unique" and have been considered by both Coedes and Wolters as the base of major maritime activities, have been described in vivid colours by Chinese and Arabic sources of the second millennium A.D., and lately have been explored by archaeologists. Finds from east Sumatran sites include antiquities such as statutory and inscriptions, but the absence of ceramic deposits suggests sparse habitation, and hence these sites cannot be taken as mature urban sites. Malayan archaeology has not succeeded in identifying any site which can be considered a true urban site along the western coast of the peninsula. Kedah and the sites around the mouth of the Takua Pa River have yielded evidence to suggest strong acculturation influenced by settlers from the Tamil coast. Much of this influence is seen in the iconography of Siva and Ganesa and in inscriptions recording the visits of Buddhist pilgrims.

The antiquity of the commerce between the Tamil coast and Southeast Asia can be discerned from a number of sources. The Chinese writer Pan Kuo of the fifth century refers to the trade of the city of Huan-tche which can be identified with Kanchipuram. From the same period, a reference to foreign trade occurs in the earliest Tamil texts; and silapatikaram of Ilango contains a vivid description of the prosperity of the town of Kaveripumpatinam, which was a trading port of some significance. This is attested to by the discovery of a large number of Roman coins with dates ranging from Nero (A.D. 54-68) to Hadrian (A.D. 117-138). The discovery of the Roman trading station at Arikamedu identified with Poduche of Ptolemy and Periplus of the Erythrean Sea confirms the impression gained from contemporary indigenous records.[10] However, from the first millennium of the Christian Era begins a period of accelerated commerce between the Coromandel coast and Southeast Asia. In Kedah on the Malaysian coast evidence has been found of merchant settlers dating to the Pallava period. The port of Takua Pa on the western side of the Isthmus of Siam was a major terminus for trade, between India and China. From this site comes a nineth century inscription which records the building of a tank by a merchant guild called Manigramam.[11] With the advent of the Chola power in southern India, the contact between the two regions became more widespread. This is exemplified by the fact that in A.D. 1025 the Sri Vijayan ruler of Malaysia built a Buddhist shrine at Nagapattinam which was supported by grants from the Chola ruler Raja Raja I.[12] Subsequent to this date, Javanese inscriptions attributed to Airlanga (A.D. 1006-1049) refer to Dravida and Chola merchants. Coedes is perhaps justified in believing that the Tamil merchants played an important role in the development of Indian cultural influence in Southeast Asia.[13]

A significant but suspiciously under emphasized body of epigraphs exist to suggest that friendly relations existed between the Chola kings of the Tamil coast and the Sri Vijayan thalassocracy. In the third year of the reign of Rajendra I, a jewelset encrusted with precious stones was presented by an agent (Kanmi) of the Sri Vijayan king (Srivijayattaraiyar).[14] Another inscription of about the same time records a gift of lamps fashioned by local craftsman and presented to the Nagapattinam temple by a merchant claiming to be the agent of the reigning Sri Vijayan king.[15] A last inscription, dated in the seventh year of the reign of Rajendra

Chola I, records the gift of 87.75 Kalunju (unit of quantity) of cinakkanakam (gold of China) and 60.75 Kalunju of undaigappon (donated gold) to purchase jewels for the presiding deity of the temple, to finance worship and food offerings, and to feed the priests who worked as the caretakers of the temple.[16] All these gifts were endowed by a person styling himself as the agent of the king of Sri Vijaya, whose identity is as yet unknown. These epigraphs offer one clue as they describe him as Kidarattaraiyar, which can be translated as King of Kedah. One conclusion which these inscriptions suggest is that there was little tension between the rulers of the Tamil coast and Malaysian coast and as the date of the last inscription is A.D. 1019, barely six years before the raid, it is definite evidence of the absence of any hostile feelings between the two states.

The agrarian foundation of early Tamil trade is clearly discerned from a number of epigraphs which record the activities of assemblies (Chitrameli:- meli means "plough" in Tamil), which are also styled as Periyanadu. Although the role played by this corporate body in the economic life of the period has not been adequately studied, a few salient features regarding the role played by this association can be gleaned from contemporary records. A few inscriptions from the Tamil heart-land exemplify the relationship between the agrarian bodies and merchant groups of the nuclear areas. An inscription dated A.D. 1168, found in Tittagudi in South Arcot district, records the endowment by the Chitrameli assembly to a temple whose deity, a soil goddess (Bhumi Devi), is adorned by the symbol of the plough of the Chitrameli.[17] This endowment was made by a group of merchants, which included both local and itinerant merchants. It is significant that the latter group is mentioned in inscriptions from Malaysia. The agrarian character of Chola commerce is again attested to by an inscription of A.D. 1235 from Anbil, in Tiruchirapalli, which mentions that the merchants were subordinate to the Chitrameli.[18] These and other inscriptions reveal that trading organizations were firmly based in the agrarian system. Stein, who first drew attention to this feature of medieval trade, has argued, "It is in fact not possible to conceive of trade of any sort or by any kind of organization which were not part of the fabric of the predominently agrarian society of the time; the Chitrameli inscriptions make it clear that the various organizations of Coramandel merchants were integrated with and subordinate to assemblies representing the major interest groups in the more developed portion of the Coromandel.[19]

From this analysis of the relationship between the agrarian order and the commerce of the Chola period, two significant conclusions can be drawn. First, the Coromandel trade with Malaysia was not so sustained and vigorous as Nilakanta Sastri believed. On the contrary, it appears to have been very desultory and intermittent; and this precludes the possibility of trade rivalries leading to the raid of A.D. 1025. Secondly, the fragmented nature of agrarian system with the almost total absence of an infrastructure to sustain and promote trade together with the fact that Chola state policy was not motivated toward achieving monopoly over the Coromandel, trade, warrants the assumption that the raid of A.D. 1025 had its genesis in causes which were not commercial. The raid of A.D. 1025, if seen in the perspective of Chola State formation and its resource base, suggests that the main motive for this venture was the acquisition of plunder and at the same time a daring act of initiative that would serve to strengthen the position of Rajendra I.

Historians working on the history of ancient Tamil Nadu have been tardy in recognizing the true nature of the Chola state. The raid of Rajendra Chola I on Sri Vijaya has been interpreted as a symptom of a dynamic political entity with a centralized leadership and administrative system, military and naval forces maintained from the central exchequer, and a strong economic foundation which could sustain such a gigantic infrastructure. Taken as a whole, Nilakanta Sastri argued in his now monumental classic, The Cholas, that the "Byzantine monarchy" of this dynasty made possible their aggressive imperialism of which the raid marks the high watermark. A characteristic passage from this book would serve to illustrate the stance of this school.

The administration had been carefully organized and a fairly powerful bureaucracy brought into existence.... The army was a strong and tried body of men, well able to defend the wide land frontier and to keep down any threatened breaks in areas newly subjected to the empire, and ready for aggressive warfare abroad. The hold on Ceylon and some other islands like the Maldives was securely maintained by a powerful naval force which also served to protect the considerable overseas trade of the empire with the islands of the East Indies and with China. During the thirty-three years of his reign, Rajendra turned these initial advantages to the best possible use and succeeded in raising the Chola empire to the position of the most respected state of his time, and one which possessed though perhaps for a short time considerable domain over the Malay Peninsula and the Eastern Archipelago.[20]

Largely responsible for such generalizations is the nature of source material available to the historian. Chola inscriptions inscribed either on lithic surfaces or on copper plates are by far the most reliable source for the study of the political and economic structure of early medieval Tamil country. Until quite recently historians have shown little sophistication in the use of Chola epigraphs. The flamboyant rhetoric of this epigraphs, particularly the Meykirtti (preamble), has led historians to infer that the spatial distribution of the epigraphs indicate the spread and consolidation of Chola rule. Rather than taking these inscriptions, essentially those found on the periphery of the Tamil country, as evidence of symbolic sovereignty, historians believed that they indicate actual political domination by the Chola monarch. Starting from this basic assumption relating to the extent of royal control, two generations of Tamil scholars have erected an elaborate edifice which contains the entire panoply of a modern bureaucratic state. This kind of an administrative system presupposes a very stable resource base with centralized controls. Earlier historians tended to ignore the fact that in early medieval Tamil Nadu the expansion of royal initiative was inhibited by two factors. First, the strong social constraints like caste, corporate groups, value systems, and the emergence of the bhakti protest movement acted as barriers to the extension of royal influence. Secondly, the agrarian order was so structured that the most fertile areas were in the hands of non-producing classes which were exempt from any kind of fiscal obligation. This resulted in a situation where taxation became marginal to the overall economy, and resources for the execution of public policy were derived from various types of free floating fluid resources which were not tied to any particular ascriptive group, and thus could be freely accumulated, transformed, and finally redistributed.

The Chola political structure was very complex, and did not conform to any archetype described in traditional Smriti literature. Whereas the Pallava rulers

made a conscious effort to institutionalize kingship along Smriti lines and sought to legitimize their dynasty by creating large settlements of the priestly order, the Chola theory of kingship made a marked departure. Retaining the essential elements of the Pallava system, the early Cholas, particularly Raja Raja I (A.D. 985-1014) and Rajendra Chola (1014-1044) devised a system of control based not on bureaucratic managerial lines but on a division of political power into various units each ostensibly independent but linked to the person of the Chola monarch by ritualistic ties. The non-formal nature of the Chola state can be discerned from the preambles of the inscriptions issued by the early monarchs. The Meykirttis of Raja Raja I and Rajendra Chola I contain the essential elements of the political and cultural ideology of the period. The fact that a laudatory preface invariably preceded the operative part of the Chola land characters reveals that such documents were used for the transmission of the doctrine of kingship and betrays the characteristic elements of ritual monarchy on which it was based. Stein, writing about the nature of Chola state formation observes, "..... there is persuasive evidence that the political order established by Raja Raja I and Rejendra I self-consciously sought to convey a new and different quality of kingship and state".[21]

Chola kingship was not custodial in nature and this makes the political theory of early medieval Tamil country different from that of the Maurya or Gupta dynasties. It is significant to note that, in cases where the Chola king alienated resources in favour of brahman settlers and established new colonies dominated by the priestly class, the king's edict (dana-sasana) took effect only with the concurrence of the local peasantry. This is best exemplified in the Larger Leyden Plates of Raja Raja I.[22] This inscription, which records the grant of land for the upkeep of the Buddhist vihara at Nagapattinam, enjoins upon the nattar (the dominant peasantry) to uphold the charity. In fact, it was only after the nattars, who are shown in this document as the executers of the deed, performed the ritual of circumambulating the land accompanied by elephants that the royal order took effect. Other Chola inscriptions of the eleventh century record the involvement of the nattar in the execution of royal orders. In other words, the Chola king did not possess the absolute right to alienate the resources of his kingdom but was, in fact, dependent upon the peasantry for legitimizing his claim to do so.

The reasons for the non-formal and ambiguous nature of Chola kingship are found in the polity which evolved in the Tamil country. A study of the earliest bardic tradition embodied in the Corpus of Sangam literature reveals that the most crucial factor contributing towards the legitimization of a king or chieftain was his participation in war. The poems of the puram (Tamil poems extolling valour) genre contain a number of references to the art of war, and the consequent glorification of war became an important element in Tamil political tradition. War was considered noble, not only because it represented a "profession of arms", but death on the battlefield was taken as an ideal well worth striving for. The puram 165.2 states, "they died having set up their fame on a firm basis" ("tampukal nirii tammayntanare). The literature of the day constantly emphasizes the idea that honour and fame could be achieved only by bravery in war, deeds of slaughter against the enemy, and the acquisition of plunder by the victors. In the context of Tamil polity this pronounced glorification of war, led to the emergence of a very much unstable and non-organized form of rulership. The chieftain's or king's claim to rule, unlike the case of the

Sanskritic tradition, did not emanate from his position as a king but from his active participation in predatory warfare. What further glorified him was the distribution of plunder, and it was expected that he share his booty by redistributing the fruits of battle. Thus the legitimization of a king in this society came from the bardic compositions that extol his bravery, generosity, and initiative. It was only from the sixth century onwards that the co-operation of the brahmans was invoked to fabricate genealogies and to authorize the powers of the king. The Sangam Arasan did not control a large area of land and it was this goal that inspired the latter Pallava and Chola rulers to look for broader and more concrete forms of legitimacy. In spite of the fact that the Chola state was amorphous and lacked the elements of an organized polity, the epigraphs show that warfare was the prerogative of the king and that the waging of war against neighbouring states or an extended frontier attack on distant states like Sri Vijaya were occasions when the royal presence could be asserted in a dramatic and highly apparent manner. The raison d'etre for such a situation is obvious from a study of Chola state organization.

Historical scholarship for the past fifty years has held that the Chola state was a centralized polity ruled by a dynasty consisting of over twenty warriors from c A.D. 846-1279. However, this view appears erroneous, as shown by Stein.[23] An alternative suggestion advanced by him, which emphasizes the distinction between ritual sovereignty and political sovereignty, helps in elucidating more clearly the nature of the Chola state. He views the Chola state as consisting of a multiplicity of political units, each unit having effective control over its own sphere of influence. Each of these segments can be taken as representing structurally the entire system. The Chola state can be divided into three segments:

(1) Nadu or Kurrum
(2) Feudatories
(3) Brahmadeya or Devadana settlements

It is significant that although they all accepted the political suzerainty of the Chola ruler they were more or less independent within their own spheres. As yet there is little evidence to show that the imperial writ extended to these areas. In the absence of an established political order, which in this case was markedly decentralized, the only alternative course by which the demands of centralized control could be reconciled with that of jealously guarded local autonomy was by manipulating existing institutions and making them serve royal interests. George W. Spencer has ably demonstrated that the proliferation of temples in the Tamil country during the reign of the most self-congratulatory of Chola rulers, Rajendra I, can be traced to his policy of making the Chola kingship a visible entity.[24]

In a polity so characterized, aggressive warfare was an integrative activity and hence the various wars of Rajendra Chola I, rather than representing an attempt at political domination and extension of Chola domain, may be viewed as a device to maintain political equilibrium in the Tamil country. The raid on Sri Vijaya in A.D. 1025 may be taken as yet another manifestation of an uncertain and non-formal power asserting its authority over subordinate units of the state by taking the initiative to wage war. In addition to the economic advantages of war gained by systematic plunder, it served to defuse the tension between the various "lesser kings" vis-a-vis the Chola state. A suggestion tentatively put forward is that such acts of wanton aggression and leadership could synchronize with periods of increasing challenges to the domination of the Thanjavur rulers.

The Chola economy was essentially agrarian in character, with trade and industrial crafts, operating within the limits of an agrarian economy. As the major resource of the region was agricultural land, it seems reasonable to assume that land revenue alone could sustain the imperial treasury, pay the salaries of the government staff, and uphold the various charitable endowments made by the Chola king. It has been argued that the gigantic Hindu temples, the eleemosynary settlements granted to members of the priestly class and the Chola court at Tanjavur were all maintained from the central treasury, which was in turn dependent upon a well-established revenue department which collected, assessed and transferred the fiscal resources to the treasury. The role of the "plunder dynamic" in Tamil history has not been stressed primarily due to the enthusiasm on the part of historians to discover the elements of a full-fledged state in Chola times. An alternative hypothesis which helps in understanding Chola history is to view the wars, campaigns, and inter-dynastic skirmishes as a conscious policy pursued by a ruler with a slender resource base in order to increase the flow of resources, both monetary and material, to the state.

A study of the agrarian system of the Chola macro region shows that contrary to earlier beliefs, the agrarian economy was outside the pale of royal control. The main reason for this is to be sought in the character of the system itself. Stein has pointed out that basic to the agrarian order were the "nuclear areas of corporate institutions."[25] He views these nuclear areas as ecological systems based on factors like irrigation and soil conditions. Such a situation would obviously imply a scattered settlement pattern. With the advent of Chola rule in the ninth century, particularly during the reign of Rajendra Chola I, effort was made to integrate the various scattered settlements into a system which would make each unit a structural complement of the whole. The creation of rent free settlements of brahmans and the granting of immense quantities of land to Hindu temples were both aimed toward the integration of the agrarian system. While integration was aimed at and attempted, no effort was made to obtain control over the resources of the region.

The inscriptional evidence dating to the eleventh century suggests that resource management came within the purview of institutions like Ur, Sabha and Nadu. These agrarian bodies were autonomous and functioned independently and there was little attempt to regulate their activities which resource management would entail.

In a situation where the position of the ruler was threatened by a number of contending elements, he was compelled to use war fare and predatory expeditions as a strategy to assert his supremacy. Rajendra Chola's raid on Sri Vijaya can be seen as an attempt at mobilization and rationalization of power for the fulfilment of royal goals in order to enhance authority and prestige. In another way such predatory raids were economically advantageous as the Chola king had command over a slender resource base. The proliferation of quasi-autonomous and segmentary units in the periphery of Tamil country made this dynasty depend on such expeditions to augment royal assets.

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21. Burton Stein, "The Segmentary State in South Indian History" in R.G. Fox (ed), Realm Region in Traditional India (Delhi: Vikas Publishing House, 1977). p. 18.

22. "The Larger Leiden Plates in Raja Raja I", in Archaeological Survey of India, Epigraphia Indica, XXII, no. 34, pp. 213ff.

23. Burton Stein, 1977, pp. 11-26.

24. George W. Spencer, "Religious Networks and Royal Influence in Eleventh Century South India", Journal of the Economic and Social History of the Orient 12(1), January 1969, pp. 42-56.

25. Burton Stein, "Integration of the Agrarian System in South India", in Robert Eric Frykenberg (ed.), Land Control and Social Structure in Indian History (Madison: University of Wisconsin, 1968), p. 180.

Buddhism in Tamilnadu

by

P.M. Joseph

One of the earliest available records, regarding the propagation of the Buddhist faith, is the Mahāvaṁśa. According to this work, Thēra Moggalīputta sent five Thēras to Tambapanni, one Mahādēva Thera to Mahisamaṇḍala, one Rakkhita to Vanavāsi, one Yōnarakkhita to Aparānta and one Mahārakkhita to another country.[1] This event took place after the third Buddhist council held in Pāṭalīputra. Of the countries mentioned in the chronicle, Mahiṣamaṇḍala has been identified with Karṇāṭaka or Mysore and Tambapanni with Ceylon. It is peculiar to note that Dravidian countries other than Mysore are not mentioned in this context. It is not likely that the religion was not to be preached in these countries. Some scholars think that Tambapanni is not Ceylon, but the area in Tinnevelli district, through which the river Tāmraparṇi flows.[2] There is another opinion that many of the S. India countries were left out because, at the time when Mahāvaṁśa was written, the relationship between Ceylon and the countries in the mainland was not amicable owing to frequent wars.[3] Perhaps the author of Mahāvaṁśa might not have considered the S. India plateau as a Separate geographical identity from Ceylon, as both of these were under the same rule then, or because the relations of these two people were too lively, whether hostile or otherwise.

Anyhow S. India could not have been left out as the team led by Thēra Mahinda might have passed through Tamilnadu to Ceylon. The possibility of the Buddhist teams travelling by sea, touching one or other of the ports in the east coast also can be considered.

Evidences of Asokan Inscriptions

The second rock edict of Asoka mentions that he has facilitated medical aid for humans and animals in the countries of the Chōlaṣ, Pāṇḍyas, Satiyaputra and Keralaputra.[4] This clearly points to the fact that Buddhist activities were current in S. India as early as the time of Asoka. The tradition of Asoka's visit to the Tamil country is upheld by the chronicle called Dīpavaṁśa. In order to see his daughter off to Ceylon, Asoka, with his army, crossed the three countries, the Vindhya ranges and the forest and came to the ocean.[5] There is a tradition that Asoka erected many stūpas in the Tamil country.

Buddhist Centres in Tamilnadu

Kāñcī or Kāñcīpuṟam, in the present Chengalpet district of Tamilnadu, was, from a very early period, a stronghold of Buddhism. The toponym, Kāñci has found place in Buddhist literature as Oḍḍiyāna, sometimes with slight variations of the form. The word Oḍḍiyāna means a girdle, in many of the Dravidian languages and Kāñcī seems to be a translation of this. Tārānātha's History of Buddhism in India refers to this centre as Urgyana.[6] Gandhavaṁśa which gives the history of Buddhist chronicles and other books, mentions that Kāñcīpuṟam, among other places, was a centre of Thēravāda Buddhism.[7] In the colophon to Manōratha-pūraṇi, Buddhaghōsa, the great Buddhist teacher, testifies to his affiliations to the Tamil country and mentions Kāñcī, where he resided for some time.[8] Buddhadatta was a Tamil Thēra and was patronised by the Kallabhra king Accutavikkanta. He was the abbot of many monasteries among which one was the monastery at Kāñcī.[9] Gandhavaṁśa gives the names of some S. Indian Thēras who wrote Pāli works. Some of these Theras, according to this work, lived in Kāñcī.[10] Anuruddha of Pāṇḍya land, whose Pāli works were popular in Ceylon and Burma, headed the Mūlasōmavihāra in Kāñcī.[11] Maṇimēkalai the heroine of the poem of Cittalai Cāttanar, according to that work, learnt higher lessons of Buddhism from Aṟavaṇa Aḍigaḷ of Kāñcī.

The dhyāna school of Buddhism has intimate connections with Kāñcī. It was Bōdhidharma, the son of the king of Kāñcī, who introduced this branch of the religion in China.[12] In the Taliang records of Burma, which narrates the traditions of Buddhist mendicants in that country, mentions that a Buddhist monk called Dhammapāla lived in a vihāra, in the place called Pararatiṭṭai near Kāñci. This Dhammapala is said to have lived in the first half of the 5th century A.D. and in the commentary he has written on Netti Atthakathā, it is stated that the work was written in Kāñcī, while he was staying in a vihāra which, according to tradition was built by Asoka.[13] Vajrabōdhi who carried the Tantrika Buddhism to the East, was a native of Kāñcī.

Tārānthā's account of Buddhism in Kanci runs thus: "during the time of Śukla-rāja (Cokkarāya?) and Candraśōbha, kings of Kāñcī in the South, the Garuḍa and other common birds were brought to control. The pankhitittha temple was built for the birds.... During the period of the three kings, Mahēndra, Kṣēmajkara and Manōhara, a thousand caityas were daily worshipped, each with an umbrella and various other articles in immeasurable quantity".[14]

Another Buddhist centre in Tamilnadu was Nāgapaṭṭiṉam. The rich monastery there, with its large image of Buddha in soild gold, was according to guruparamparā, looted by Tiṟumangai Ālvār.[15]

Kāviṟippūmpaṭṭiṉam or Pukār was an ancient stronghold of Buddhism in the Tamil country. Cīttalai Cāttanār says that his heroine Maṇimēkalai learnt primary lessons of Buddhism in Pukār. Cilappati-kāṟam mentions the Intiṟavihāṟam in this city. The Pukār kāṇḍa of the same work gives a picture of Buddhism in this place at that time. In the abhidhammāvatāra of Buddhadatta, there is a glowing account of Pukār, with the concourse of merchants, its palaces and pleasure gardens and the author states that he wrote the work at the instance of Buddhasīha staying in a beautiful vihāra on the bank of Kāvēṟi river.[16] Cakkiravāḷakkōṭṭam is another place mentioned in Maṇimēkalai as a stronghold of this religion.[17]

Another centre of Buddhism was the area in and around Madurai. Kaḷukumalai near the city of Madurai, figures in Buddhist

literature, as Grddhrakūṭa. The Prajñā-pāramitāsūtras were declared for the first time, in this mountain. There are some rock-cut temples in Kaḻukumalai, which bear similarity with those in Ceylon.

Potalaka was a Buddhist centre of pilgrimage. It was somewhere in the southern parts of the western ghats. The deity of this place... was Nīlakaṇṭha Avalōkitēśvara. The temple was on the top of a precipitating hill. The devotees who succeed in reaching the summit, could have a darśon of the deity, some times in the form of Īśavaradēva and sometimes as a yōgin. Lokesh Chandra makes an analysis of the Buddhist literature about this deity and concludes that the concept of Nīlakantha Avalōkiteśvara is the result of Buddhist apotheosis of Hari-Hara. In this connection we may recall that the deity of Śabarimala in Kerala, who is called Śāsrā and who has some Buddhist affiliations is also called Hariharaputra.[18]

Like the Kalabhras, the Cōlas were supporters of Buddhism. Buddhadatta bears testimony to the construction of two large monasteries in the Cōla country. The presence of Buddhism in this area and the influence of Buddhist scholarship on Tamil Literature is evident from Vīracōḻiyam, a work of Tamil grammer, written by Buddhamitranār.

Hiuen Tsiang found so many sangharamas in the Cōla country. Near the capital there was a stūpa built by Asoka. In Kanci also he found a stūpa which was attributed to Asoka. South of Drāviḍa, Hieuen Tsiang found the Malakūṭa country, in which there were ruins of many sanghārāmas. There were some followers at the time of the visit, and the Chinese pilgrim saw a sanghārāma in ruins near the entrance of the capital. The tradition was that it was built by Thēra Mahinda. Near by there was a stūpa built by Asoka.[19]

Lokesh Chandra has detected some S. Indian words in the Dhāraṇīsūtras. According to him, "the use of Tamil words in the Dhāraṇīsūtras was a deliberate effort at charging the language with esoteric effects, as a special terminology or sandhābhāsā, union of two meanings, the ordinary as well as the symbolic, the union of the divergent vocabularies, by the insertion of Tamil words in Sanskrit mantras to render them more thaumaturgic in their unfathomable obscurity..".

In Japanese Vajrayāna there is a ritual of Acala. Acala is the emanation of Siva in Japan. In the Tibetan tradition, he is Caṇḍamahārōṣaṇa. The acculturation of Siva into the Buddhist tradition had taken place in S. India and thence it was transmitted to Indonesia where Siva-Buddha syncretism was deeply entrenched.

South India and Tantrika Buddhism

South India has made her contribution to Buddhism, especially, Tantrika Buddhism. "The cradle of Paramitayana and Vajrayana was in S. India, around Śrīparvata, Dhānya-kaṭaka, Potalaka and Oḍḍiyana, which are in Andhrapradesh and Tamilnadu and in the eighth century this area became an important centre for transmission of tantras to Indonesia and China. Joshi ...opines: 'it is therefore clearly established that the earliest seats of Tantrika Buddhism was not Bengal, Orissa or Assam, but Oddiyana and Andhradesha'. From early centuries Southern India played a leading role in the development of Buddhism."[20]

Pāli Loan Words in Tamil

Another means to ascertain the activities of the Buddhists in Tamilnadu is the presence of Pāli loan words in Tamil. As has been noted above, Pāli works were written in Tamilnadu and the presence of large number of Buddhists in this area for centuries, provided opportunity for the Tamil speech community to have cultural contact with them and this

led to the borrowing of Pali words into Tamil. Though we find the twilight of Buddhism in this area after 8th century A.D., these evidences clearly tell us that Buddhism once thrived in Tamilnadu as well as in other S. India countries.

Some Pāli (Pa.) loan words absorbed into Tamil are given below: Parallel forms if any in other major Drn. languages Ma(layalam), Te(lugu) and Ka(nnada) are also given.

1. Ta. antarāḷam 'intermediate space', Ma. antaṟāḷaṃ 'interior', Te. antaṟāḷamu 'the middle space, interval' / Pa. antarāḷa 'id' Skt. antarāla 'id'.

2. ampalam 'open space for the use of the public' Ma. ampalaṃ 'temple', Ka. ambalaṃ 'An open hall or shed, where public affairs are discussed' / Pa. ambala-koṭṭhaka 'N. of a sitting hall' Skt. ambara 'an enclosure'.

3. aḷakā 'city of Kubera' Ma. aḷaka 'N. of the capital of Kubera' Ka. aḷaka /Pa. aḷakā 'id' Skt. alaka 'id'.

4. aḷintam 'platform at the entrance of a temple', Ma. aḷintakaṃ, aḷindaṃ 'terrace before a house door' Te. aḷintamu 'id' / Pa. āḷinda 'id' Skt. alinda 'id'.

5. āṟiyar 'brahmins, one who is an Ārya by race', Ma. āṟiyar 'id' ka. āṟiya 'a respectable, venerable man' / Pa. āriya 'noble respectable' Skt. ārya 'id'.

6. iyakkaṉ 'yakṣa', Ma. iyakkaṉ 'N. pr., N. of a class of demi-gods who are described as attendants of Kubera' / Pa. yakkha 'supernatural being' Skt. yakṣa 'id'.

iyakki 'a female yakṣa', Ma. iyakki 'N. of a goddess' Pa. yakkhī 'supernatural being' Skt. yakṣiṇī 'id'.

7. iñci 'Zingiber officianale', Ma. iñci 'id' / Pa. *siñji, cf. Pa. singi 'ginger' Skt. 'sṛngin / śṛngivēra' 'id'. Palatalisation of gutterals, though rare, is found in Pa. DED derives Skt. 'sṛngivera 'from two Drn. words iñci (363) and vēr (4554). Also see Burrow BSOAS xii 130. The ultimate origin of the medicine denoted by the first element iñci or 'sṛngin has been established to be S.E.Asia by F.W. Thomas. (JRAS, 1905. p. 169). Besides 'sṛngin has an etymology in Skt. 'sṛngavān śṛngiṇah (Pāṇ. 5-2-114). It seems that 'Śṛngivēra got its name from horn-like formation of the roots. The second element -vēra may be Drn.

8. īḻam 'Ceylon', Ma. īḻaṃ 'id' / Pa. sihala 'id' Skt. siṃhala 'id'.

9. ēḷakam 'sheep', Ma. ēḷekaṃ 'id' Ka. ēḷāga, ēḷaku 'id' / Pa. ēḷaka 'id' Skt. ēḍa 'id', ēḍaka 'kind of plant'. European scholars derive Skt. ēḍa from Drn. āṭu (Kittel xxxiii, J. Block BSOAS v. 740, T. Burrow, ibid, xi 132). Here it seems to be a re borrowing.

10. oṭṭakam 'camel', Ma. oṭṭakaṃ 'id' Ka. oṭṭe 'id' Te. oṇḍe 'id' / Pa. *oṭṭaka cf. Pa. oṭṭa 'id' Skt. uṣṭra 'id'.

11. Kamuku 'areca palm', Ma. kamuku 'id' / Pa. kamuka 'id' Skt. kramuka 'id'.

12. kuḷam 'molasses', Ma. guḷaṃ 'id' Ka. guḷa 'a ball, molasses' / Pa. guḷa Skt. guḍa 'id'.

13. kuḷiyam 'globe' Ma. gulikā Ka. guḷige 'a ball, a pill' Te. guḷiga 'id' -ka 'id' /

14. cūḷāmaṇi 'chief gem of the crest or diadem', Ma. cūḷāmaṇi 'jewel on the head' / Pa. cūḷāmaṇi 'id' Skt. cūḍāmaṇi 'id'.

15. koṭṭam 'the medicinal shrub Costus speciousus', Ma. koṭṭaṃ 'id' / Pa. koṭṭha 'id' Skt. kuṣṭha 'id'.

16. koṭṭil 'cowstall' koṭṭi 'tower gate in a temple', Ma. koṭṭil 'small house', Te. koṭṭi, koṭṭika 'tower gate in a temple' / Pa. koṭṭha 'monk's.

17. taccan̲ 'carpenter' Ma. taccan̲ 'carpenter' / Pa. taccha 'id' Skt. takṣa 'id'.

18. tāḷam 'beating of time in music', Ma. tāḷaṃ 'id' Ka. tāḷa 'id' Te. tālamu 'id' / Pa. tāḷa 'blow of musical time' Skt. tāḍa 'blow'.

19. tuti 'praise', Ma. tuti ''id', Ka. tuti 'id' / Pa. thuti 'id' Skt. stuti 'id'.

20. naṭṭam 'loss', Ma. naṭṭaṃ 'id', Ka. naṭṭi 'id' / Pa. naṭṭha 'lost' Skt. naṣṭa 'id'.

21. nantiyāvaṭṭam 'Taberie montanna coronarica', Ma. nantiyārvaṭṭaṃ 'Ceylon jasmine, Ervatania diverticata' Ka. nandivaṭṭa 'id' / Pa. nandiyāvaṭṭa 'Turning auspiciously' Skt. nandyāvarta 'particular kind of palatial building'.

22. naḷini 'lotus tank' Ma. naḷini 'id' / Pa. naḷinī 'id' Skt. naḍinī, -l- 'id'.

23. nāḷikam 'lotus, arrow' Ma. nāḷīkaṃ 'id' Te. nāḷīka 'id' / Pa. nāḷika Skt. nālīka 'id'.

24. paccimam 'western' Ma. paccimam 'id' Ka. paccima 'id' / Pa. pacchima 'western, last' Skt. paścima 'later, hinder, western'.

25. puttakam 'book' Ma. puttakam 'id' Ka. pottage, hottage 'id' / Pa. putthaka 'id', Skt. pustaka 'id'.

26. puḷakam 'horripilation', Ma. puḷakaṃ 'id', Ka. puḷaka, -ke 'id' / Pa. puḷava 'erection of the hairs of the body' Skt. pulaka 'horripilation'.

27. Pēḻai 'box' Ma. pēḻa 'id', Ka. pelige 'id' Pa. pēḻa 'basket, chest' Skt. pēṭa 'id'.

28. mañceṭṭi 'Indian madder', Ma. mañcaṭṭi 'id', Ka. mañjiṭṭige 'Rubia cordifolia' / Pa. mañjiṭṭhi 'id', Skt. mañjiṣṭhā 'Rubia cordifolia or its die'.

29. yukaḷam 'pair', Ma. yugaḷaṃ 'id' Ka. jōḷa 'id', Te. yugaḷamu 'id' / Pa. yugaḷa 'id', Skt. yugala 'pair, couple'.

30. vaccir̲am 'thunderbolt' Ma. vaccir̲am 'thunderbolt, diamond' Ka. ojjar̲a, be- 'id' Te. vajir̲amu 'id' / Pa. vajira 'id' Skt. vajra.

31. vīr̲iyam 'strength, vigour' Ma. vīr̲iyaṃ 'virility' / Pa. vīriya 'effort' Skt. vīrya 'manliness, virility'.

Foot Notes

1. Mahāvaṃśa, Paricchēda 12.
2. Mayilai Cini Venkatacami, Pauttamum Tamilakamum (Saiva Siddhanta Publishing Co. Tinnaveli, 2nd imp: 1950) p. 27
3. ibid p. 26
4. Hultzsch (ed). Corpus Inscriptionum Indicarum (Vol I., Oxford, 1925) p. 2
5. Dīpavaṃśa XVI 1-3
6. Lama Cimpa (tr.) Tāranātha's History of Buddhism in India (Centre Institute of Advanced Studies, Simla, 1970) p. 332
7. Lokesh Chandra 'Oḍḍiyāna a New Interpretation' in IJDL Trivandrum Jan. 1980, p. 119
8. Paranavitana 'The History of Ceylon' in The Vākāṭaka Gupta Age (eds: R.C. Majumdar & A.C. Altekar) Motilal Banarsidass, Benares, 1967) p. 259
9. Lokesh Chandra op. cit. p. 130
10. ibid. p. 131
11. ibid
12. ibid. p. 132
13. Mayilai Cini Venkatacami, op. cit. pp. 24-5
14. Lama Cimpa, op. cit. 334
15. K.A. Nilakantha Sastry, The Cōḻas (University of Madras, 1935)p. 117

16. ibid pp. 117-21

17. Maṇimēkalai, kātai 17

18. Lokesh Chandra, _Nīlakaṇṭha Avalōkitēśvara; A Buddhist Apotheosis of Hari-Hara_ (New Delhi, 1967) mimeo.

19. Samuel Beal, _Buddhist Account of the Western World_ (London, 1906) p. 227

20. Lokesh Chandra, Oḍḍiyāna, A New Interpretation, IJDL Jan. 1980 p. 127

Mylapore Temple

by

N.S. Ramaswami

The history of the Kapalisvara temple in Mylapore, a part of Madras, is interesting in two respects. The temple has been transplanted from its original site, and it was rebuilt in its present location about the seventeenth century at a time of turmoil in north Tondaimandalam.

Originally the temple stood by the Bay of Bengal, right on the shore. The first solid fact in its history is Appar's visit to it in the seventh century. Sambandar, who followed him after a few years, says that the temple is "surrounded by groves of Punnai, very near the sea". Sundarar, in the eighth century, speaks of the temple's antiquity. Thus, the original temple stood by the sea and, in the eighth century, was considered ancient.

Its original site by the sea must have been on, or near, that now occupied by the Santhome Basilica. This is clear from the artefacts and broken epigraphs found in Santhome, as the eastern fringe of Mylapore is called, during excavations by the Archaeological Survey of India in the Basilica area in 1923 and 1970. A few inscriptions have also been noticed in private dwellings in Santhome.[1]

The last reference to the old temple by the sea occurs in Arunagirinathar's "Tiruppugazh". A contemporarv of Praudha Devaraya, of vijayanagar, he lived in the fifteenth century. He sings of Lord Subramania in a shrine in the temple, not in a separate temple for him. This temple must have been that of Kapalisvara.

Chronologically the next reference occurs in a Portuguese book, published in Lisbon in 1666-1675. Manuel de Faria y Sousa says that the "Blacks", or the Golconda troops, "battered "Santhome "from the Pagod near St. Francis", which, we learn from another source, was the name given to the western gateway of the Portuguese fort in Santhome.[2] It stood at the junction of Kutcherry Road with Arundale Street, in Mylapore, hardly a furlong north-east of the present temple.

If there should be any uncertainty about this reference, though to persons familiar with the locality there can be none, the next available reference proves conclusively that the temple was in its present location by 1674. Before this year the French, who had captured Santhome from the Portuguese, stood two sieges by

the Golconda forces allied with the Dutch. During the first the French fortified the Kapalisvara temple as their "western outpost" and the Parthasarathi temple, in Triplicane, in the north.[3]

It, thus, becomes clear that the Kapalisvara temple stood by the sea till the fifteenth century, and was in its present location in the seventeenth. The change in site was due to the activities of the Portuguese, who had come to the coast "not earlier than 1522". Till a Tamil work "Tirumayilai Ula" was published a few months ago, there was no indication who had re-built it.[4] The "Ula" states that he was Muthiappan, a son of Nainiyappan. This information removes a big void in the history of this great temple. But another still remains; what were the disturbed circumstances in the land in which he did so such that of the temple's thirty-two inscriptions only two are whole and entire and that all the rest are fragmentary and mutilated. Scholars can only hope that evidence will turn up to shed light on this aspect.

It is impossible to assert when the original temple, the one which Appar and Sambandar knew, was built. The earliest structural temples to survive, in part or as incorporated in later buildings, are of the last quarter of the seventh century; the Kuram, near Kanchipuram, and the original sanctum in the Vedagirisvara, atop the hill in Tirukkazhukunram, both of the times of Paramesvara I Pallava. Since nothing is known of the old Kapalisvara temple before Appar in the same century, it is reasonable to premise, on the basis of what Mahendra I Pallava states in his celebrated Mandagappattu inscription, that the original structure was built of brick, wood and mortar, all perishable substances.

When the temple was rebuilt in stone it is impossible to say. There is no evidence like that which states that Queen Semibian Madevi did so in Thanjavur district. In fact, there is no evidence of any kind. The inscriptions and the images discovered in the A.S.I's excavations in 1923 and 1970 are of the eleventh and twelfth centuries, belonging as they do to the reigns of Rajendra I and Vikrama Chola.[5] But it is inconceivable that the temple was rebuilt in stone so late as these centuries. It is reasonable to suppose, from the fact that Kunram and Tirukkazhukunram are near Mylapore, some forty and twenty miles distant respectively, that the old Kapalisvara temple was rebuilt in stone in the seventh century, or at least not much long after.

The change must have occurred after Appar's visit. He did not worship at temples connected with stone. This was because of stone's association with death dating from the megalithic times which was still strong in his day.

The old temple's location by the sea is surely remarkable. It was one of four in what may be broadly called the Madras coast; the Thyagaraja in Tiruvotriyur, the Parthasarathi in Triplicane, and the Marundisvara in Tiruvanmiyur being the others. South of Tiruvanmiyur along the coast there is no temple till Tiruvadandai, and north of Tiruvotriyur there is none notable till the northern shore of Lake Pulicat, where one in a place called Pandurangam has an inscription referring to Pavittri which, according to the "Ahananuru", was Tondaiman Ilamtirayan's capital. It is an intriguing fact that there should have been no less than four celebrated temples on a stretch of some ten miles of coast in the Madras region, but none north or south of these for many more miles. The Kapalisvara temple must have served the Pallava port of Mylapore as the Shore Temple did the greater Pallava port of Mamallapuram.

We must imagine the placid and beneficial history of the Kapalisvara temple till the arrival of the Portuguese. Sambandar's hymns praise it for the numerous festivals held there, in no less than ten months of the year. But the greatest event in the temple's history was the miracle he performed in bringing Pumpavai back to life. That must have made a great impression on the people, and the numerous festivals must have attracted them to it.

Outside the temple, Mylapore must have resounded to the noise of emigration of Hindu religion and civilisation to the yound lands beyond the waves. Mamallapuram was the chief outlet of this great enterprise, but Mylapore must have had a part. Of all this there is no trace in the records or the annals of the temple.

The coming of the Portuguese to the Coromandel coast in the sixteenth century transformed the history of the region. They were inimical to Hinduism, and there is ample evidence of their hostility on the east and the west coasts, and also in Sri Lanka. The Kapalisvara temple ceased to exist by the sea after Arunagirinathar's visit in the fifteenth century.

We know how that it was Muthiappan who rebuilt it some two furlongs to the west, and we can guess that he must have done so by the seventeenth century. beyond the fact that his father was named Nainiyappan and that he probably belonged to the "Thatchi" family, because there are a few streets in Mylapore bearing the names of a few of its members, we know nothing about him.

He must have been a person of some consequence in order to be able to build a temple. He was also a man of great faith. The times were sorely troubled. Raksas Tangdi in 1565 had created instability, unrest and commotion in the land. If we had some idea of the exact date the temple was rebuilt, we would probably be able to describe the conditions in detail. As it is, we can make only some general statements.

When, in 1640, the English began building Fort St. George some four miles north of Mylapore, the local suzerain was Damarla Aiyappa, a brother of Damarla Venkatapathi, who was a kind of viceroy of his brother-in-law, Emperor Venkata III, with his headquarters in Vandavasi. Venkata had come to the throne in 1633. That year the previous Raya, Rama, had either died or been overthrown after a short reign of almost unending war.[6] As if the continual Muslim invasions were not enough, members of the royal family frequently came to blows. The magnificent polity that Krishnadevaraya had perfected was falling to pieces. Venkata succeeded to the throne with great difficulty. Most of the Kannada province of what remained of the empire was in revolt. The Telugu province was more friendly. Yet there was fighting nearly somewhere or other in the empire. Conditions had been no better at any time before after Raksas Tangdi.

The unhappy Madras region bore the brunt of another source of disorder. By the end of the sixteenth century the Portuguese on the Coromandel coast were declining. The Dutch were then virile and aggressive. There were frequent conflicts between the Dutch, with their principal seat in Pulicat, and the Portuguese, in Santhome. In fact, it was to "separate" the two that Damarla Venkatapathi permitted the English to build a fort in Madras patnam.[7] The conflict drew in the French and Golconda. Nearby Santhome fell first to the French and subsequently to the Dutch and Golconda. There was no lack of fighting and disorder in the Madras region.

It was in this time of turmoil that Muthiappan rebuilt the Kapalisvara temple. Even if history did not tell us that the time was most unsuitable for a big venture like erecting a temple, a look at the temple's epigraphs will. As I have already said, just two out of thirty-two are complete and refer to the temple. All the others are not only fragmentary but also have come from other temples in the Madras region. There is even a Portuguese inscription.[8] The evident conclusion is that a great amount of building material dismantled or destroyed from other structures, including forts and temples, was available for use here. There are many telltale signs that they were used. Most of the inscriptions, fragmentary and mutilated that they are, are found in the shrine of the Goddess, and a few are even placed upside down.

The surrender of Santhome fort by the French to the Dutch and Golconda came probably too late to have any bearing on the remaking of the Mylapore temple. That was in 1674. But there had been fighting around Santhome since 1662 when Golconda captured the fort and held it for ten years when the French took it. Later, in 1678, Shivaji, in his celebrated southern campaign, passed by Madraspatnam. Apart from what might be called the normal wear and tear of war there were large stores of building materials available when, under orders from Golconda, Santhome's fortifications were destroyed after 1674. Twenty-three years later, in 1697, the Mughals destroyed what had been left undamaged. "Even the flag-staff was pulled down, and for years the materials formed a quarry for neighbouring builders".[9] There must have been a similar source of materials in the earlier decades.

Two other temples in Mylapore, the Karnisvara and the Madhava Perumal, contain inscriptions belonging to other fanes.[10] The former has four from Thiruvanmiyur, the latter two from Siva fanes. The Vellisvara, a few yards south of the Kapalisvara, has two from Tiruvanmiyur. No less than seventeen of its total of twenty-one are fragments. Some of these are parts of the <u>prasastis</u> of Kulottunga I and Rajadhiraja I.

An analysis of the thirty-two inscriptions which appear so fortuitously on the walls of the Kapalisvara temple shows that just one fragment has come from the old fane by the sea. It mentions Sundara Pandya and records a gift of land to "Tirukkapalisvaramudaiya Na...."[11] All the other inscriptions, except two of late date, have no bearing on this temple at all.

Three have been ascribed to the twelfth century. One (no. 85) records a gift to the temple in Trisulam, near Pallavapuram, or old Pallavaram, and probably comes from that fane. Another (no. 101) is a fragment of Vikrama Chola's <u>prasasthi</u>. The third (no. 97) states that twenty buffaloes were gifted for two votive lamps, but in which temple it is impossible to say.

All these three inscriptions are found in the shrine of the Goddess. In fact, it is in that shrine that no less than twenty-six of the total of thirty-two appear. There are only four in the Lord's shrine, those numbered 102, 103, 104 and 116. The first and the third, both fragmentary, have been ascribed to the thirteenth century. The second, which probably is of the eighteenth century, states that Tirupathi Ellappar Pillai built the "tirumadil" for the merit of Ramaraja Tirumalai Devamaharajayyan. Only this epigraph and the fourth are full and complete.

The fourth, dated March 16, 1896, records the fact that Arumuga Mudaliar, son of Andi Subbaraya Mudaliar, living at

no. 4, Rakkiappa Mudaliar Street in Mylapore gifted his coconut grove situated in Urur village, in Chengalpattu district, and worth Rs.2,500 to meet the expenses of the evening and morning festivals on the opening day of the "Brahmotsavam" in the temple. He also gave a house plot belonging to him, in Nattu Subbaraya Mudaliar Street in Mylapore, so that visiting pilgrims could be supplied with food during every day of the "devasthana ardha jama puja". Further, he gifted a jewel worth Rs.3,000.

This inscription is the last on the temple walls. Thus, just two of the thirty-two epigraphs really belong to the present temple. One is of the eighteenth century, the other of the nineteenth.

That the temple cannot be much older than the seventeenth century is clear from its sculpture. This is distinctly late Vijayanagar in style. There are a few unusual aspects. The Lord's shrine faces west while the main gopura stands on the east. The question is why. Then, if Ellappar Pillai built the prakara walls only in the eighteenth century, how could the French have used the temple as a "strongpoint" in the seventeenth?

Perhaps the explanation in regard to the first question is that in the oldern days the village of Mylapore was located in what is now west of the temple. In 1980 the remains of a Chola well were unearthed in a house in what is now called Abhiramapuram, about a mile west of the temple. This may be an indication that the settlement was located in these parts. It is a fact that the big eastern gopura was built about the beginning of the present century.

As for the second question, the inscription is by no means very forthcoming. Rather, curtly it records the building of the "tirumadil", and that too in the singular. It would not be unreasonable to believe that the temple had been enclosed in the previous century too and that what Ellappar Pillai did was to rebuild or renovate in the fashion familiar enough from other records of similar type.

"Tirumayilai Ula" which, for the first time, tells us that Muthiappan built, not re-built, the temple, was written by a poet whom that magnate patronised.[12] We are told that the patron built on a grand scale. What he erected were a "golden temple", prakara walls, a tank with lotus flowers, a lofty gopura, a palace, a mandapa, beautiful resthouses, "mada" streets, and gardens with ever fragrant flowers. We are also told that the car festival used to be held in the month of Ani, and not as now. We can deduce the fact that Muthiappan was a "dharmakarta" of the temple.

It is customery for grateful poets to embellish their patrons' munificence, and we are not to suppose that Muthiappan did, in fact, build all that his eulogist ascribes to him. But the important fact is there, that it was Muthiappan who rebuilt the temple. A great lacuna in the temple's history is filled. Only the future must fill another void, full knowledge of the conditions under which he did so.

Foot Notes

1. There are English translations of these inscriptions in Father H. Hosten's "Antiquities from San Thome and Mylapore", Calcutta, 1936, pp. 50-57.
2. H.D.Love's "Vestiges of Old Madras", Vol.I, London, 1913, p. 293.
3. C.S.Srinivasachari's "History of the City of Madras", Madras, 1939, p. 74n. Also "India in the 17th Century (Social, Economic and Political). Memoirs of Francois Martin". Translated from the French by Lotika Varada-

rajan, New Delhi, 1981, Part I of Vol.I, pp. 240-302.

4. "Tirumayilai Ula", Edited by M.K.Raman, International Institute of Tamil Studies, Madras, 1983. pp. 48-49.

5. Translations in Hosten, ibid. These inscriptions, though fragmentary now, give the impression that the Cholas perhaps extended or at least renovated the temple.

6. M.H.Rama Sarma's "The History of the Vijayanagar Empire", Vol.II, Bombay, 1980, pp. 168-170.

7. N.S. Ramaswami's "The Founding of Madras", Madras, 1977, p. 5.

8. Hosten, ibid. p. 119. It is a "fragment of a Portuguese tomb-inscription.

9. Srinivasachari, ibid, p. 116,.

10. "Chennimanagar Kalvettugal". Edited by R.Nagaswami, Tamilnad State Department of Archaeology, 1970. The Mylapore inscriptions in this compilation are from no.82 to 169. They are from a number of temples in that area.

11. Ibid, no.82.

12. "Tirumayilai Ula", ibid. 8.

Iconography of Gajasamharamurti

by

Raju Kalidos

Gajasamharamurti is a fierce form of Siva. It depicts the slaying of an elephant demon, gajsura, by Siva. It is one among the raudra (fierce) forms and forms part of Saiva iconography as related in the silpasastras, agamas and puranas. In the present paper an attempt is made to trace the canonic versions concerning this form. It also tries to identify an image of the type found in the National Museum at Calcutta with Gajasamharamurti which is (when the author saw it in November 1982) labelled as "Slayer of Andhaka, the demon-a fierce form of Siva." Though the main focus of attention is directed towards the sculpture in the Calcutta Museum, a comparative study of other images on the theme is also attempted.

According to the Kurma Purana[1] the destruction of gajasura who turned blasphemous by obstructing the Linga puja of certain brahmanas was accomplished by Siva. He tore the elephant and wore its hide as his garment.[2] The elephant demon is also said to have sprung from the sacrificial pit of the risis of Daruka forest who waged a cunning war with Siva which the latter tore and made its hide his upper garment.[3] According to the Varaha Purana[4] a mighty demon called Andhakasura challenged Siva and tried to whisk away his consort. In his audacious attempt he was helped by another demon called Nila who assumed the zoomorphic form of an elephant. Andhakasura was slayed by Siva with the help of Visnu and the Sapta- Matrkas while Nila was killed by Virabhdra. According to the Suprabhedagama also the slaying and flaying of the elephant demon was done under similar circumstances.[5] Thus mythological accounts treat of gajasura either as independent or as an aide of Andhakasura.

Silpasastras treat the independent form of gajasura as chastised by Siva. The Kasyapasilpasastra[6] calls it Gajasamharamurti. He is said to wear all kinds of ornaments and is either four or eight handed. In both types, he holds the elephant's skin in a tearing attitude with two hands on either side. Two other hands in the caturbhuja type bear the pasa (noose) and gajasrnga (tusk). The six other hands in the astabhuja type bear the sula (trident), udukkai (small drum) and pasa in right hands; gajasrnga, kapala (skull) and vismaya mudra in left hands. Siva is to stand on the mastaka (head) of the

slain elephant. The tail part of the dissected beast is carved above Siva's crown. On the sides legs are carved. The elephant's hide, thus shown in the background, should resemble a prabhamandala. The Amsumadbhedagama[7] describes two types of Gajasamharamurti which closely follow the caturbhuja and astabhuja murtis of Kasyapiya. In another astabhuja type the six hands, other than those holding the gajasarman (elephant's skin), according to the Kasyapiya, bear the following: sula, sword, gajasrnga, kapala, ketaka (shield) and sword. The left leg in all the three types is planted on the head of the elephant while the right leg is lifted sidewise in utkutika pose. Parvati with the baby, Kumara, stands by his side in a frightened attitude. The Silpartna calls the image Gajahamurti and describes two astabhuja types in both of which the objects held in hands are the same but for minor changes in mutual exchange of weapons from one hand to another. He wears the tiger skin and a white silk garment on the loins.[8] Other details are the same as related in Kasyapiya.

The Sritatvanidhi names the form under study as Gajasurasamharamurti (the Lord who destroyed the Elephant-demon). He has eight hands. Two of them tear the elephant and hold the skin above. Five of the hands hold the sula, sword, udukkai, tanka and mrga. The remaining hand is held in suci mudra. Other features of the image resemble the Kasyapiya version.[9]

The sculpture lodged in the Calcutta Museum (Pl.) is standing in a posture which resembles alidha or kuncita. The right leg is placed firmly on the ground while the left knee is raised upto the level of the genital organ. The latter is possibly in the urdhva posture. The foot of the raised leg is bent inwards and held by an attendant god as in the case of Bhuvarahamurti.[10] Few more attendant gods and goddesses are also found near the foot in dwarf stature. The slayer-god is eight handed. Two of the back hands are lifted above the head and hold the skin of the elephant under slaughter. Adjoining the lifted left hand, the mastaka of the elephant is carved. The front right hand holds a khadga (sword). The other two right hands are not clearly visible in the photograph. Perhaps one holds the noose. Of the left hands one is broken and the other not legible. One is bent at the joints and the forearm held in urdhvajanu posture holding a kapala(?). The facial expression of the slayer is so terrific with knitting eye-brows, eyes partially closed and the mouth slightly agape. The locks of hair are arranged in jatamakuta fashion. He wears a number of ornaments such as patra kundalas, haras, keyura, kankana, udarabandha and anklets. Also worn in upavita fashion is a kapalamala. The dress on the loins is a tiger skin, tugged to the body with a lion-faced belt.

The surest clue to the identification of the Calcutta Museum image with Gajasamharamurti is the mustaka of the elephant which is carved on the top left corner and the two upper hands which hold the gajacarman. Of the objects held in the hands, the pasa and the kapala are connected with the form under study. The khadga has replaced the trisula which is usually is associated in Gajasamharamurti. Other points of disagreement are: (1) the mastaka found at the top should have been placed at the bottom, (2) the elephant's hide is not arranged in the form of a prabhavali, (3) silpa texts do not provide the kapalamala to the present form, and (4) Instead of the attendant deities stationed near the foot, Siva's consort, Uma, with Skanda should be found there.

In spite of the discordant elements found in the iconographical constitution of the Calcutta Museum image, it can be identified with Gajasamharamurti with reference to the following points (1) the

khadga is a substitute for trisula and takes an important position in the Darasuram[11] and Halebid[12] images. (2) None of the available specimens of Gajasamharamurti depict the elephant's mastaka at the top of the panel. In this respect the Calcutta Museum image is unique, showing a deviation from the normal mode of portrayal. It seems to suggest that the Lord is still engaged in the act of dissecting the beast while other images of the type having the mastaka at the feet of the Lord, suggest the stage in which the slaying is complete. (3) Regarding the absence of prabhavali like hide of the elephant it may be stated that the sculpture at present is available in broken condition. So we cannot be sure whether the artist originally provided the prabhavali or not. (4) Though the silpa texts do not provide the kapalmala to Gajasamharamurti, it is an attitude of the fierce forms of Siva such as Bhairva. So artists could have taken the liberty of associating certain features, not actually prescribed in silpasastras, in order to bring out the terrific gesture effectively. In this respect it may be stated that the Valuvur bronze[13] has a kapala fitted on the jatamakuta of Gajasamharamurti which again is not advocated in canons of sculpture. (5) Regarding the absence of Uma and her baby near the foot of the Lord and the presence of other attendant deities, it may be observed that it need not be viewed seriously because in the Amrtapura[14] (Mysore Province) and Halebid[15] images a host of attendant deities other than Uma is present.

Regarding the other qualities of the image, it has to be noted that the utkutika posture as advocated in the Kasyapasilpasastra and executed in most of the available specimens is not to be clearly traceable in the image under study. The left leg is lifted in a pose, resembling the kuncita attitude or what may be called the ardha-caturatandava posture. This again need not be considered as a serious factor in disclaiming the image to be Gajasamharamurti. First of all, the present posture itself gets nearer to utkutika and is an apology for the same. Secondly, the Ellora (Cave XVI) image depicting Gajasamharamurti is in the same stance as the Calcutta Museum image with the only difference that the former has the right leg lifted.[16] Thirdly, the Pattadakkal image is in the same standing mould as the Calcutta Museum image.[17] This is to establish the idea that the utkutika posture if adopted in a slightly modified form need not be treated as a serious factor in the identification of a Gajasamharamurti image.

Taking up the question as to why a sculpture which goes so closely in identification with Gajasamharamurti is misconstrued as Andhakasuravadhamurti it may be stated that the image under study is remarkably in agreement with the Andhakasuravadhamurti of Cave XXIX at Ellora.[18] The stance, facial expression and ornamental aspects in both are in perfect harmony with each other. The Ellora sculpture also seems to have had a kapalamala which is damaged in the present state. On the similarity of the two images under consideration, the Calcutta Museum specimen could have been wrongly labelled.

To sum up, it may be stated that Andhakasuravadhamurti is not at all a canonical form of Saivite iconography. None of the South Indian silpa texts such as Kasyapasilpasastra, Agastyasakaladhikara, Silparatha, Sritatvanidhi, Sarasvatiyacitrakarmasastra and Manasara deal with a form called Andhakasuravadhamurti. The iconographical features of the said form are described by T.A.Gopinatha Rao (op. cit., Vol.II, Pt.I, pp. 192-4) and R.S.Gupte (op. cit., p. 70). Their accounts go closer to the description of Gajasamharamurti. There is no point of poignant deviation

from where both can be separated reasonably. T.A.Gopinatha Rao has taken into account the features of three images from Ellora and Elephanta for building up a form called Andhakasuravadhamurti which R.S.Gupte has followed in his monumental work with more illustrations. In their attempt both depend upon specimens and not silpasastras. Basically this error in the methodological approach to the study of Andhakasuravadamurti. In such a state of affairs the present author finds no need for a separate form called Andhakasuravadhamurti at all. That too in the case of Calcutta Museum sculpture which has the elephant's mastaka carved at the top of the panel, the label 'slayer of Andhaka' is not all fitting. Beyond doubt, it is Gajasamharamurti.

Foot Notes

1. T.A. Gopinatha Rao, Elements of Hindu Iconography (Varanasi, 1971), II, Pt. I, P. 150.
2. This incident is alluded to in a number of hymns, sung by the Nayanmars of the early 7th century A.D. in Tamil. Vide Tirumurai 4, Patikam 19, v. 7; Tirumurai 6, Patikam 237, v. 6. The references are: velatturi portton (He who wore the elephant's hide) and yanai uritton (He who tore the elephant).
3. Tirumandhiram, v. 21.
4. T.A.Gopinathat Rao, op. cit., I, Pt.II, pp. 379-80.
5. R.S.Gupte, Iconography of the Hindus, Buddhists and Jains (Bombay, 1972), p. 41.
6. Kasyapasilpasastra (herein-after noted as Kasyapiya) Patalam 73, vv. 4-15.
7. T.A.Gopinatha Rao, op. cit., II Pt.I, pp. 151-2.
8. Silparatha, ch.22, vv. 106-113.
9. Sritatvanidhi, I, 3.54.
10. Kalpana S. Desai, Iconography of Visnu (New Delhi, 1973), figs. 60-3.
11. T.A.Gopinatha Rao, op. cit., II, Pt.I, P. 154 Pl.xxxii.
12. Ibid., p. 156, Pl.xxxiii.
13. Ibid., p. 154, Pl.xxxi.
14. Ibid., pp. 152-3, Pl.xxx.
15. Ibid., p. 156, Pl.xxxiiii
16. Ibid., Pl.viii, fig.44.
17. R.S.Gupte, op. cit., Pl.viii, fig.43.
18. Ibid., Pl.ix, fig.54.

4

Process Grammar, Agamic Psychology and the Social Sciences

by

K. Loganatha Mutharayan

1. The Need For A New Psychology

The methodological principles underlying the social sciences and in particular psychology, is in flux. While the East is still in a deep slumber, the West is coming up with new insights, new techniques, new philosophies on how to study man. We have Behaviourism developed by Pavlov, Skinner and a host of others concerned with the problem of how to change the behaviour of man (and animal). The Radical Behaviourism of Skinner explores in minute details the contingencies of reinforcement that is effective in bringing about desired modifications in behaviour. It has been criticized on the grounds that it is reductionistic and does not allow for creative changes in individuals, the realization of what is potentially there but hitherto not realized. There is such a thing called metaneeds as opposed to deprivation needs. The metaneeds do not quite often manifest themselves before the deprivation needs are satisfied. But on that account it does not follow that metaneeds emerge out of or can be reduced to the basic needs. (Maslow Cf. John B.P. Shaffer 1978 p. 35).

Freud introduced the concept of unconscious in Western psychology and Jung on the basis of deeper explorations into the mythical and religious experiences of mankind, the concept of Collective Unconscious. The phenomenological and existential psychologies do not appear to be happy with such notions. Man is responsible for what he does; we cannot transfer the responsibility to some hidden content in his mind that are products of traumatic experiences in early childhood or even more ancestral. Existence begins with birth and ends with death. In order to understand existence we must analyse, explore consciousness in all its modes without any preconceptions. The truth is there in consciousness for *it* reveals intentionality by understanding which man is made transparent. (Misiak & Staudt Sexton, 1973).

One could go on with similarities and differences that exist between the different schools of psychology. The issues become more critical and complex when comparisons are made with Eastern traditions in such matters. There are differences, overlaps as well as incompatibilities. Clearly there is a need to think afresh the foundations of these different schools of thought in order to see how each stands in relation to the others. We need a

comprehensive view, a deeper perspective within which we can hope to place these different schools and thereby inter-relate them meaningfully without distorting their central insights. We have to attempt what Arunandi Sivacariar accomplished in his time i.e. investigate the different systems and see which belongs to the purvapaksa and which to the supaksa.

This has to be done also for another reason. There are many kinds of social organisations that incorporate a definite hierarchy. We shall single out the guru-centered social groupings because it is central to understanding the essence of Asian cultures. The guru-culture differs from other corporate organisations in an important way. It centres on a person and is held together by the magnetism of the central figure.

Group membership rests upon what the guru stands for which is usually a system of beliefs, practices, claims of special powers, intuition, knowledge, capacities and so forth. The culture survives through a system of lineal succession (cantanam) where each successor is a guru who develops further what is inherent in the 'teachings' of the initial guru. There is an enormous range of such systems ranging from shaman-like gurus to mighty philosophers/saints who have contributed immensely to the growth of human civilization.

Two aspects will be isolated from what can be called standard guru-cultures.

a) The guru has a personal magnetism by the force of which alone he gathers his flock.

b) The systems allow for questioning and consequent verification of the claims of the guru by the desciples.

When the questioning and verification are allowed no more, either the guru-culture becomes defunct or a religion with the 'teachings' maintained dogmatically and followed 'blindly'.

I think the methodological principles underlying the present (and largely Western) psychological studies do not allow for explaining the two features isolated above of the guru-culture. The epistemological principles that are used for defining what is acceptable knowledge and what is not is very circumscribed. Not alone does it not allow for explaining a large domain of human behaviours it also distorts in an important way the manner in which we make sense of such behaviours. We need a new system of psychology that is more comprehensive and inclusive with large range of methodological principles that do not at the same time sacrifice the concept of science and hence undermine scientific activity as such. I shall call this new psychology agamic psychology in view of the fact it underlies the agamic (or tantric) component of Indian culture, the highest development of which goes by the name of Saiva Siddhanta.

Following the leads provided by Meykandar (13th Century) who seems to have introduced a new level of rigour in the psychological sciences in India, I shall take it that a system of psychology as a formal system will have at least the following elements.

i) There will be a list of objects that are taken as real with clear designation of their categorical status viz. - concrete particulars, abstract entities, qualities, actions, emotions, time, space and so forth. This will be the universe of objects of the discipline.

ii) The system will also allow the generation of propositions that are either verifiable or refutable. This it does through listing a range of

cognitive operations which have as their domain the objects listed as real viz. - the universe of objects of the discipline.

iii) The grammar of the cognitive operations and the distinguishing characteristics of the elements in the universe will determine the principles of verification of the statements about them. The system will make these principles explicit through a delineation of the logic and grammar of the cognitive operations listed.

iv) The system will also specify a range of exploratory techniques, techniques that are taken to serve individuals to discover new objects in the universe and describe them more accurately and elaborately.

v) In view of the inherent feature that no list of objects, techniques, principles, rules and so forth can be complete, the system will also have a meta-rule that would allow for reconstituting the elements of the system whenever it becomes necessary. It may include then a list of conditions where such a rule can be applied.

The above issues except the fifth, are discussed by Meykandar under piramanaviyal, ilakkanaviyal, catanaviyal and payaniyal.

The system has to have two different forms of language - an object language and a meta-language. The object language can be seen as a calculus that would allow for listing the various objects, picturing the various propositions and so forth. The meta-language would specify what cannot be specified (or shown) by the object-language.

The system conceptualised as above is a science is a science as it allows for intersubjective confirmation (or refutation) so that truths as objective realities can be established. It is agamic in the sense that it allows for reconstituting the system without however sacrificing the scientific character of endeavour, i.e. it allows for absolute creative advances. It is psychology in the sence that it is concerned with human behaviour in the broadest sense and seeks to gain an insight into the workings of the human mind, the psychic tendencies that ultimately condition human behaviour, both individual and social.

Process Calculus As A Universal Calculus

Now I shall describe a particular realization (or interpretation) of agamic psychology using Process Calculus as the Object Language and natural (English) language as the meta-language.

Process Calculus is a new calculus developed to account for the syntactic, semantic and pragmatic features of natural language. The Predicate Calculus used currently by philosophers, linguists and some psychologists was found to be too restrictive and inadequate for describing the grammar of natural language. The details are available elsewhere. (K. Loganatha Mutharayan, 1983 a). I shall describe below a broader version of the Calculus. What is pertinent to note here is that the Calculus now removes the restrictions of any particular natural language in the semantic field it maps out. It is broadened to include any meaning, including those communicated through bodily languages - gestures, postures, signs, signals and so forth; they are assumed to be 'picturable' in this calculus. The propositional pictures that is generateable within any natural language in a historical period will turn out to be, in principle, a sub domain of what is generateable within the Process Calculus.

The basic elements of the calculus are as follows:

1. a) There is a universe of concrete particulars U, the individual elements of which are represented by the Latin letters, a, b, c,... and so forth. A group of them will be represented by the capital letters A, B, C and so forth. The domain will be taken to be infinite in principle while finite when space and time dimensions are stated explicity.

b) The categories Space and Time will be represented by S and T respectively. Both can be divided into an infinite number of finite elements and ordered with respect to each other. In fact Space and Time do not exist as elements without an ordering operation of some kind. One kind of ordering lead to the tenses i, j, k, i.e. Past, Present and Future and another to aspects.

c) There is also the universe 'V' of dependent elements such as qualities, processes, shapes and so forth. Though actions are slightly different but as they also do not exist apart from a doer whether animate or inanimate, they will also be included in this category. It is possible, however, to state within the calculus conditions whereby actions will turn out to be a special sub-category of the category of dependest particulars. The Greek letters α, β, γ. will be used to denote individual elements.

d) The semantic field is definable in terms of concepts which are taken to be forms of consciousness individuated and detached from the originating sources and existing as objective elements. We shall assume a number of features about them.

i) They are organised into networks of relations such as 'subordinate to', 'contrary to', 'contradictory to', 'the opposite of' and so forth. Such relational linkages determine at least part of the logic of languages and in particular syllogisms such as those studied by Aristotle and Buddhist Logicians.

ii) A network of concepts implicitly define a category of objects in the object universe. Concepts pertaining to concrete objects may not range over, for example, the domains of qualities or actions and so forth.

At least two concept systems will be taken to be the case in all languages viz. the system X that contains concepts that serve to establish identities of the elements of the universe U and the system Y that range over the universe V. The individual elements of X and Y are symbolized as x_1, x_2, x_3 .....; y_1, y_2, y_3 .... and so forth. Particular networks are symbolized as X^1, X^2, X^3 .....; Y^1, Y^2, Y^3 .... and so forth. The relationship of an individual concept to the network it belongs to is symbolized as 'X^i_{xj}' and so forth.

2. A variety of cognitive acts are recognised as real and necessary to explain to generation of propositional pictures in general and, the logical and grammatical intuitions we have about language.

a) Intrapropositional Cognitive Acts

i) Object identification act whereby a particular object, say 'a' is said to be a so-and-so. The particular as represented by say, 'a' is assumed to be a perceptual awareness devoid of conceptual

apprehension. Object identification is then conceptual awareness of what the thing is. If the concept underlying this awareness is 'x', the conceptual awareness is represented as (x ɜ a) with the symbol 'ɜ' represents the object identifying cognitive act. These two forms of object awareness correspond to the Indian 'niruvikarpa' and 'cavikarpa' forms of consciousness.

ii) Case - indexing Operation
whereby an entity is said to be the Agent; the Object on which an action is effected; the instrument in effecting a certain action; the spatial, temporal, location of an event; the one oriented to the speaker, i.e. the vocative, the origin of a movement; the terminal of a movement; the associate of an agent; the recipient of an ascription and so forth.

There is no separate symbol for the operation but it is shown by indexing the entity with the case that is imposed for example if 'ε' is the symbol for the agentive, and if the entity 'a' is subjected to this casal indexing then it would be symbolized as 'a^{ε}' and so forth.

The case of an object is that which distinguishes it from the state of being simply an element in the universe of objects. An object has to be 'cased' or case-indexed when it is brought in relation to another category. (For a more extensive discussion see K. Loganatha Mutharayan, 1982)

iii) Ascription Operation
When such category of objects as qualities, attitudes, values, characters, actions and so forth are said to be true of an entity in general or in a particular instance, the cognitive act involved is the ascription operation. Again there is no separate symbol for this operation but it is shown by the symbolic device of writing the symbol of the object ascribed immediately next to the entity, i.e. ($a\overset{w}{\alpha}$) and so forth where 'w' is the case-symbol for the nominative.

iv) Selection Operation
When an element in a propositional picture is isolated for additional ascription we have the selection operation. It's symbolic representation is explained in the next section.

b) Inter-propositional Operations

i) Logical Operations With The Exception of Affirmation And Negation
These are such operations as conjunctive co-ordination ($p \wedge q$) and disjunctive co-ordination ($p \vee q$). These will be taken to be special cases of Universal conjunction Π (p, q, r, ...) and Universal disjunction Σ (P, q, r, ...).

ii) Presupposition
When a class of prepositions are brought together and a new one subset assumed as true while the as true while the other as asserted we have this presupposition operation, symbolised as 'PoQ', i.e. $(P_1, P_2, P_3 \ldots P_i, P_{i+1}, P_{i+2} \ldots P_n) \longrightarrow (P_1, P_2, P_3 \ldots P_i)\ o\ (P_{i+1} \ldots P_n)$.

The selection operation can now be shown as below. For example

if the truth of say 'x ⊃ a' is presupposed and 'a' is isolated for further ascription, this will be shown as: (x ⊃ a) o a^{w} .... and so forth.

It can be seen that as defined the selection act is dependent on the act of presupposing the truth of a particular proposition i.e. the validity of a propositional picture of reality.

c) Propositional Acts

These are acts done on propositions and they are viz. affirmation and negation. Affirmation will not be separately symbolised but negation will be indicated by N(P).

Such propositional acts must be distinguished from assertion, denial and so forth which are speech acts i.e. a species of acts.

Two features of the above acts, taken to be intuitively true, are described in the following postulates:

R1: All cognitive acts are recursive i.e. a particular act can be effected upon its product.

R2: Each cognitive act defines its own conditions of affirmation and negation.

It must be remarked here that it is recursivity of the cognitive acts such as those described above that underlies the capacity individuals have to generate an infinite number of sentences from a finite set of elements, a feature of linguistic competence Chomsky (1965) has described.

We shall not attempt here to list the conditions of affirming and negating that each cognitive act defines. Text books on logic describe partly such conditions but clearly more extensive investigations will be necessary before anything definite can be said. Some work along these lines has already been started by linguists (James D. McCawley, 1981).

Referential Perspectives are elements of the calculus of a peculiar sort but nevertheless necessary to truly picture human consciousness.

References to concrete particulars seem to be of peculiar importance in natural language (as noted by P.F. Strawson, 1959, Part 1) and in the structure of human consciousness. These objects are spatio-temporal bodies and form in relation to the human body the origin of reference to dependent entities, spatial locations and time slices.

We shall distinguish two referential frames: Local Reference Frame (LRF) and General Reference Frame (GRF). When the body of the speaker is used as the origin of reference (e.g. this, that, etc.) when speaking we have the LRF referential perspective. When the reference is made to an object in general where referential identity has to be established through description alone (e.g. The man wearing the white shirt under the tree) we have the GRF referential perspective. Object introduction within LRF will be indicated by the subscript ' ι ' e.g. ' a_{ι}' and within GRF by the absence of ' ι ' e.g. 'a'.

The use of pronouns particularly 'I' and 'You' (and plural 'We' and 'You') seems to indicate that there is yet another referential perspective which we shall call Person Reference Frame (PRF). The grammatical distinctions of first person, second person and third person cannot be reduced to the referential perspectives of LRF and GRF.

Though there is a complex relationship between PRF, and the other reference frames, the pronouns 'I' and 'You' establish distinctions not possible to establish with LRF and GRF alone. Here is where the need to assume as real the entities that we have termed selfs, (or psyches) gets support. The entities involved in the role relationships of 'I' and 'thou' are not non-intelligent entities but rather intelligent ones capable of perceptions, consciousness, intentions, wants and wishes and so forth.

The first, second and third person distinctions will be shown in the calculus by the superscripts f,s and t respectively, i.e. S^f, S^s and S^t.

The calculus described thus far is certainly not complete or even sufficiently adequate to describe what we already know of human consciousness. But we shall leave it at that as it would suffice for the purposes here.

Another distinction should also be noted. The calculus would allow the representation of three different kinds of things and the manner in which they stand to each other viz.

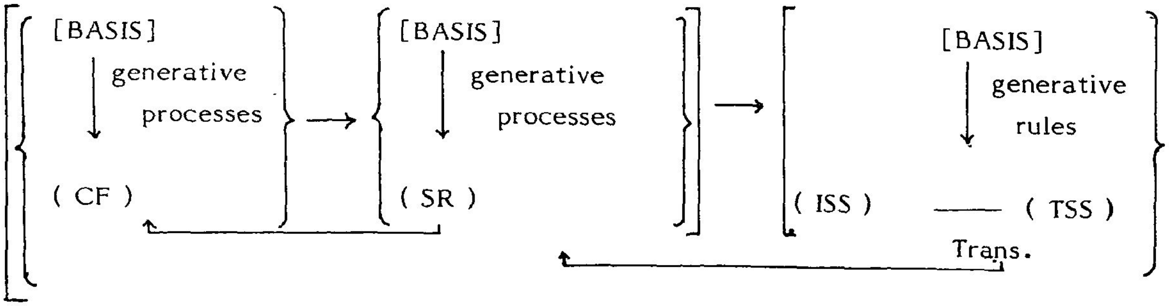
a) the form of human consciousness.

b) the generative processes underlying the origination of such forms of consciousness and

c) the structure of the code (linguistic and other) and hence indirectly the codification process itself.

The representation of (a) will be called 'Semantic Form/Representation' (SR), and (b) the Cognitive Form (CF). The (c) will be the code itself where the elements will be physical elements spatically or temporally organised e.g. writings, utterances, movements, gestures and so forth.

In the case of linguistic code, it has been found necessary to postulate two types of surface structures for these codes - the Initial Surface Structure (ISS) and Terminal Surface Structure (TSS). The TSS is obtained through a sequence of objectively specifiable transformational operations upon ISS. It is not clear whether such levels of codes and transformations are existent in other codes as well. The relationship between these forms and operations can be seen as follows:



The CF is a coherent class of cognitive operations which in conjunction with conceptual elements as the basis lead to the generation of SR - a picture of reality that a person can be aware of and is normally aware of. What determines the formation of CF and the generation of SR is the intention of the speaker. The SR is what is evaluated against what is intended and revisions take place if there is discrepancy. However, to a large extent the cognitive processes underlying the formation of CF, is not available in consciousness - they remain as the 'cognitive unconscious', to use a Piagetian phrase. The analysis of syntax is the kinds of things a person has to do to gain access into his own cognitive unconscious.

The communication of generated SR forms the substance of semiotics. In general such awarenesses is the foundation of all behaviour - verbal and non-verbal. What gets expressed linguistically or paralinguistically is only a subdomain of this vast domain. When this happens we have initially the Lexical Transformation - the mapping of concepts into verbal symbols. We have as the output of this transformational process the ISS which is transformed into TSS which is a linearly ordered sequence of grammatical units of language that is uttered or written.

Again there is loop-like relationships between the inputs and outputs in this process with the self of the person remaining as participant of the process, the agent, the evaluator and the monitor of the process.

I shall give one example below to illustrate the observations above.

TSS: The monkey climbed up the tree.

ISS: $(\text{That}_1 \text{ is monkey}), (\text{That}_2 \text{ is tree}) \quad o \quad (\text{That}_1 \text{ climbed up that}_2)$

$$\text{S.R.}\left[\begin{array}{c|c|c} x_1 \quad x_2 & & x_2 \sqsupset a \\ X \qquad X & U_{a,b} & x_2 \sqsupset b \\ Y_y & V_{\alpha}^{\varepsilon,\lambda} & (\Delta_1, \Delta_2)\ \sigma\ a^{\varepsilon}\ b^{\lambda}\ \alpha . i \end{array}\right] \begin{array}{ll} x_1: & \text{MONKEY} \\ x_2: & \text{TREE} \\ Y: & \text{CLIMB} \end{array}$$

$$\text{C.R.}\left[\begin{array}{c|c|c} x_1 \quad x_2 & & \\ X \qquad X & U_{\varphi,\psi} & x_1 \sqsupset \varphi \\ & & x_2 \sqsupset \psi \\ Y_y^{\varepsilon,\lambda} & V_{\alpha}^{\varepsilon,\lambda} & (\Delta_1, \Delta_2)\ o\ \varphi^{\varepsilon}\ \psi^{\lambda}\ \alpha . i \end{array}\right]$$

Two particularly interesting aspects of our analysis of linguistic behaviour should be noted.

a) What is communicated, understood, doubted, verified, accepted, questioned, repudiated, joked about, made fun of, remembered, recalled and so forth are such pictures of consciousness as shown by SR's.

b) What is gained by syntactic analysis however, is not 'new' knowledge - it is a gain in consciousness of what is within our cognitive unconscious. We can propositionalize this 'insight' and make it a matter for intersubjective confirmation but certainly with its own conditions of verification.

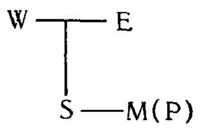
4. The Grammar of Science

These two aspects pose problems for the concept of science and the criteria of what is the correct methodological principles for the psychological sciences. I shall now attempt to show two distinct senses in the concept of objective knowledge and explain the basic principles of agamic psychology and how it differs from the current schools of psychology.

Such SR as above can be symbolized as 'thoughts' generated from a set of concepts about a phenomena 'p', that is M(P). But thoughts are dependent particulars and they exist as the thoughts of someone. So every thought will have the form:

$$S - M(P)$$

Where 'S' stands for a psyche or self. Normally thoughts are the kinds of things that are approved or disapproved and also the sorts or things that arouse emotions of various kinds. When we ascribe a thought to a sell 'S', we can also ascribe a set of values W and emotions E along with the thoughts, i.e.



This then is a representation of a particular person having a particular thought.

Stating something, or saying something then can be construed as communicating a thought that is believed by the speaker to be the case. In the context of scientific activity, such acts amount to claiming something that can be verified by another person. The processes of stating and verifying are interpersonal behaviours and hence has to be analysed along the lines of Hermeneutical Model (K. Loganatha Mutharayan, 1981, 1982, 1983) to be consistent with the lines of investigation suggested by Process Grammar.

One formulation of the logic of science is follows:-

I i) P must be replicable at least in principle.

ii) The values and emotions associated with any claims are irrelevant for the scientific activity.

iii) What are verified are thoughts and when claims are acceptable to a community of co-workers according to the prevailing criteria of acceptability, they become scientific truths.

A number of intersting features of this logic of verification or intersubjective confirmation must be noted.

a) S_2 perceives the intentions of S_1 and proceeds to verify only when the perceived intentions of S_1 are scientific.

The process involved can be seen as follows:

$$W \top E$$

$S_1 - i_1 - M(P)$	:	S_1 intends and states M(P)
$S_2 - C\left[S_1 - i_1 - M(P)\right]$	:	S_2 perceives the intentions of S_1 and his claims.
$S_2 - i_2 - M(P)$	:	S_2 generates the same thoughts as S_1 with the intention to verify.
$S_2 - M(P)$	:	S_2 verifies M(P)
$(S_1 \wedge S_2) - M(P)$	:	S_1 and S_2 accept the truth of M(P).

b) 'Verification' is actually agreeing upon or reaching a consensus about a possible mode of perceiving or being aware of P. In other words, it is not absolute certainty that is reached but rather a collective agreement that does not preclude further modifications.

c) the phenomenon 'P' is assumed to be, in this account at least, invariant to the processes of observation, objectively there unaffected by the processes of observation.

The essence of this concept of scientific activity or scientific rationality, is that it is essentially a process where convergence in perception is reached about an invariant or reproducible slice of reality among a community of intelligent (and well trained) observers who could differ in principle. The observed features along with the rules of the activity provide them with the norms for agreeing or disagreeing. The scientific enterprise, in this view, becomes a community affair with shared norms that make intersubjective confirmation possible. Scientific knowledge is social and hence not absolute. It is possible within this definition of knowledge for there to be changes within the conceptual system or theoretical perspectives that could change the perceptual modes. The structure of M could change, new convergences could be established and so forth.

This definition of science comes closest to that of the positivist - the 'hard' ones among the scientists.

When we transpose such methodological principles to the psychological sciences, difficulties emerge.

When we study the problems of cross-cultural psychology (and also inter-cultural psychology) the conflict of values and differences in emotions and so forth become apparent. The demands of consensus or convergence of thoughts among a community of observers so vital for the accumulation of scientific knowledge is not after all value free. The one should agree to that mode of verification itself is a value tranforming demand the enterprise makes upon the individuals who intend to participate i.e. the would be psychologists. So strictly speaking the scientific enterprise is not value free but one where there is uniformity of value at least with respect to the acquisition of knowledge.

The syntax of scientific activity or the logic of intersubjective confirmation should then be recast as follows:

II

$W_1 \top E_1$; $S_1\,(M(P))$ $\qquad$ $W_2 \top E_2$; $S_2 - M(P)$ $\qquad$: S_1 and S_2 with same thought but different values and emotions.

$W_1 \top E_1$; S_1 — $[V_2 \top E_2$; $S_2(M(P))]$ $\qquad$ $W_2 \top E_2$; S_2 — $[V_1 \top E_1$; $S_1\,(M(P))]$ $\qquad$: Perception of individual differences in value and emotions.

$W_s \top E_s$; $((S_1 \wedge S_2) — M(P))$ $\qquad$: Similar values and emotions between S_1 & S_2

The subjects S_1 S_2 realize that though they have the same thought about P, i.e. M(P), the value they attach to its epistemic importance and the affective feelings they have towards it are different. There is then here a cross-cultural or even intercultural conflict situation that is resolved only by both changing themselves so that both share the scientifically relevant values and feelings viz. W_s and E_s.

The last few steps in this 'grammar' of scientific activity coincides with the positivistic definition of science. Therefore, this delineation does not still constitute a threat to positivism.

Another kind of difficulty emerges when 'P' ceases to be unaffected by observation but becomes rather reactive. 'P' may be a slice of the physical world (e.g. the subatomic particles in nuclear physics) or an intelligent creature with

varying degrees of reactivity. When this happens, the condition of 'reproducibility' or invariable identity of the observed under observation ceases to hold and hence one of the conditions of intersubjective confirmation as above fails. When a creature under observation perceives that it is being observed and reacts to that, the creature brings in a new kind of relationship between the observer and observed.

There seems to be only one way to surmount the difficulties of such reactivities to the scientific activity within the logic we have delineated. This is to include under the observer the observer himself i.e. what is observed becomes not alone P but rather 'O - P'. If 'P' is an intelligent creature then the observed becomes $V_s \top E_s$ / $S_o M_o$ $V_s \top E_s$ / $(S_1 M_1 (P))$

The observer transforms himself into part of the observed through a process of psychic disengagement or reduces himself to the status of the observed and lets another person do the observation and study. The latter alternative is that taken in the Hermeneutical Model (K. Loganatha Mutharayan, 1981, 1982) proposed for human interactions. It does not create any great methodological difficulties. But the transformation of onself into part of the observed through a process of psychic disengagement presents methodological problems of a grave sort. For what is observed within oneself through such a process is a private world accessible only to the observer. One cannot cross check the claim by observing the same elements on which the claims are made.

However, this does not mean that we have to give up the idea of scientific activity in such realms of behaviour. We must revise the above strongly positivistic definition with a broader one that would still conform to our intuitive sense of what science is, what rationality is.

The psychology defined by the grammars I and II can be called Behavioural Psychology. Since now we are making important departures from this, the revised psychology will be called Criterialogical Psychology. The essential revision is as follows:

a) The phenomena 'P' is either private 'I' or public 'U'.

b) If public then the grammar of a scientific study of such objects is given in II.

c) If private then it is as follows:-

i) Every statement about I correlates strictly with a statement or atatements about U that is ((S - M(I)) - M' (U))

ii) Establishing the objective truth of M(I) will have two processes: establishing the truth of M'(U) and the truth of M'(U) being causally linked to the truth of M(I). Under such circumstances M'(U) will constitute the criteria for the acceptance of the truth of M(I).

The grammar of such a process of verification will be as follows (omitting the intentionalities).

III $(S_1 - M_1(I_1)) - M'_1(U)$	:	S_1 claims something about I_1 and states M'_1 (O) as evidence for it.
$S_2 - ((S_1 - M_1(U) - M'_1(U))$	:	S_2 becomes aware of S'_1s claim
$S_2 - M'_1(U)$	:	S_2 affirms M'_1 (U)
$(S_2 - M_1(I_2)) - M'_1(U)$	:	S_2 affirms correlation between M'_1 (O) and M_1 (I_2)
$S_2 - (S_1 - M_1(I_1) - M'_1(U))$	:	S_2 affirms S'_1s claim assuming catagorical identity between I_1 and I_2

The assumption of only categorical identity between I_1 and I_2 is the weak point in this methodology, something that appears to be impossible to overcome even in principle. Daryl J Bem (1978) claims in his 'self-perception Theory' that 'individuals come to "know" their own attitudes, emotions, and other internal states partially from observations of their own overt behaviour and/or the circumstances in which this behaviour occurs' especially when the internal cues are weak. Given this it only follows that even for self-perception such statements as M'(O) are relevant especially when the internal cues are weak. This does not deny, however, the very important distinction between private and public elements. Where strong cues are available one is able to perceive one's own affective states and correlate it with overt behaviour. This, I take it, is part of what is ordinarily meant by saying 'understanding one's own behaviour'. This kind of ability i.e. to perceive one's own internal states and correlate it with overt behaviour is an ability that seems to be necessary for verifying self-perception claims. Having affirmed in himself, on seeing another with similar overt behaviour, he assumes also a similar internal state and revises it only when subsequent events points to an error in the assumption. The ability

to correct his assumptions about the connection between internal states and overt behaviour rests upon he already knowing what constitutes the correct type of linkage between the two.

Another aspect of the above should not go unnoticed. An internal or private element can be 'seen' only if it can be objectivised. This implies that the observer in order to observe his own internal state has to establish a psychic distance between the self and the psychic states. Cirrampala Natikal has called this a process of psychic disengagement (Ta. Kalaral). What the logic of confirmation III demands of the participants is then this additional ability, an additional technical competence for being a psychologist.

Now the possibility of this disengagement also implies that before that was effected, the self behaved as if it did not exist as a distinct entity at all. It was, for all practical purposes, one-with the internal states; the internal psychological states was equated with self. We have to conclude then that a psyche has this capacity - to lose itself with a set of elements by a peculiar process of attachment and also when necessary to dissociate or disengage itself from them. To Meykandar (13th century) probably should go the credit for articulating this characteristics of the psyches for the first time. Cirrampala Natikal takes it further and establishes a new psychological discipline by centering his endeavours on such disengagement techniques. The contents of "Tukal Aru Potam' and 'Tokal Aru Potak Kattalai' by his chief student Tattuprakasar (K Loganatha Mutharayan, 1983) describe in detail the psychology of such a disengagement technology. The essentials of this psychological tradition which developed within the Saiva Siddhanta tradition and which revolutionized the thinking of the whole of South India at least, will be described below to further elucidate the logic of scientific activity.

I shall call this psychological discipline Transformational Psychology and by way of describing its essentials I shall be just summarising the text 'Tukal Aru Potak Kattalai'.

In this text, the guru begins his instructions as a result of the disbeliefs of a student in the reality of a large number of objects he enumerates as constituting the ontological space of the universe. The student would believe in them only if the Guru furnishes enough evidences to show that he has actually seen them. But the Guru, instead of furnishing evidences to substantiate his claim or even entering into a philosophical analysis of what is meant by real and so forth, decides to help the student to 'see' for himself the objects he himself has seen. Through prescribing a variety of techniques the student is led to perceive a wider and deeper realms of objects hitherto blocked from his cognitions.

The first part of the text is concerned with procedures that are termed collectively Cutta Tattuva Tutanam. The student is led progressively to disengage himself from all the ninety-six tattuvas that from the basis of the empirical reality, the empirical experience. This process of disengagement results in the person being able to see himself, his Ego in its nakedness, itself as it is without any 'covers' arising out of its engagement with the world of tattuvas. The substages in this process of psychic disengagement are: Panca Puta Pazhippu whereby the psyche transcends the world of physical elements by a process of disengagement, Poriyara Unartal, transcending of the world of senses and sense data; antakarana cutti; disengaging oneself from the cognitive mechanisms; and kalati jnana nirakaranam - transcending the world of space, time and matter, consciousness, desire and activity.

With these transcendences the Ego is freed from the maya malam i.e. being in active engagement with all the material processes including the physical, psychological, phenomenological and so forth. The Ego in bondage to the material processes is defined as a cakalan; when it disengages itself completely from them and does not return to the bound state of existence, it is said to be a pralayakalan.

However, the Ego that liberates itself from the world of tattuvas discovers that it cannot 'see' anything now. It realize then that there must be an obstruent within the Ego obstructing cognitions of whatever kind. This inhibitor, cognition blocking stuff within is the anava malam. Seeing only this anava malam that ensues is termed kevala tarisanam. Now a desire is born to remove this darkness that engulfs the Ego. The consciousness out of which this desire is born is termed pasu jnanam, Ego-Consciousness.

At this stage when the student reflects upon the progressive disengagements he has effected, the ontological space he has travelled he begins to think that his Ego is the only intelligent entity and all the others are non-intelligent material stuff. This cognition underlies his belief that he is the Supreme Agent i.e. he becomes the propounder of 'Aham Brahmasmi' claim. When the Guru points out that this claim is inconsistent with the fact that he was a cakalan who was in bondage with the material world, the student resorts to explaining the discrepancy in terms of karma. Effectively, he says it is the karma that he has acquired and that is intrinsic to him that is responsible for his engagement with the material universe, assuming a psycho-physical form, being born, dying and so forth. However, it turns but that though it is true that the Ego has karma, the Ego having karma is not something that has come about as a result of Ego's own conscious actions, or the actions of karma or any other tattuvas that has been sighted so far. The student is led to belief in the possibility of there being another intelligent entity that stands one with the and distinct from the Ego and all the material processes that have been ascertained as real. The Guru also provides a detailed account of how this other intelligence, the Supreme Agent goes about determining the psycho-physical experiences of the Ego consistent with the karma acquired. Subsequent to that begins instructions pertaining to procedures for removing the karma from the Ego.

Karma, it is mentioned, is not something that can be dislodged and thereby anmihilated. It has to be 'digested', lived through and thereby removed. One must experience for oneself the course of experience the karma unfolds for the Ego. What can be done however, is to prevent the further addition of karma to oneself. Karma acrues to one as a result of desire related conscious intentional actions; by not doing actions of this act sort one prevents the further accumulation of karma. This existential state is acquired as follows:-

Caitanya is defined as a state of existence whereby the Ego believes that whatever that happens to oneself is caused by the Supreme Agent who acts in the guise of people and objects around, remains unaffected by the happenings round and anchors all its activities on the Supreme Agent. When such a state is accomplished, the Supreme Agent stays one with Ego regulating all its activities through the dynamics of Grace-Energy. At this junction the consciousness that 'I am Brahman' will disappear; Tirotayi, that which obstructed the cognition of Grace-Energy will be dislodged, and with Activity-Energy will cause the Ego to feel all is Siva and nothing else exist. This 'nothing else is real' feeling will eliminate all desires and thereby all intentional actions.

The additional explanation that is furnished by the Guru is clearly an account of the unconscious psychic processes under the control of the Supreme Agent. Normal existence is compared to a sleeping man from whom an object is stolen. Though he can cognise normally, while sleeping he does not; the cognitive mechanisms being non-intelligent do not cognise either. The Grace-Energy that informs him usually allows him to be unconscious as a result of his karma. In other words karma is identified as that which causes the Ego being unconscious of happenings around and within itself. Karma blocks consciousness of processes under the control of the Supreme Agent. Intentional actions being consciousness narrowed or focused actions adds on to Karma as such. By avoiding such desire related actions and doing actions with consciousness secured on the universal processes i.e. processes under the control of the Supreme Agent, further additions to karma are avoided. During such modes of existence, Grace-Energy of the Supreme Agent floods the Ego removing or weakening the hold of the deep seated constraints afflicting the cognitions of the Ego. At the end of this process or at least during the advanced stages of this process, the Ego begins to have cognitions of Siva himself, the Supreme Agent himself. With these visions begins Siva-Consciousness.

When, in the brilliance of Siva-Consciousness, the Ego fails to be conscious of itself, it is said to be in a state of Arul-Kevalam. This is overcome by gaining self-consciousness with the assistance of Grace-Energy.

Next the Ego is required to centre itself on Grace-Energy and remain absorbed in it. A new state of consciousness is gained and the object cognised is Parasakti, the undifferentiated 'body' of Siva from which issues the Desire-Energy, Consciousness-Energy and the Activity-Energy. Seeing or cognising it is termed Parai tarisanam, uniting with it is Parai viyattam, remaining in that vision without any other thoughts is Parai yokam. Experiences such as these are termed Cutta-vattai. Lowering oneself in the bliss of this union is Parai yunar pokam. When this state of existence is established, the cognitive processes of Siva become the cognitive processes of the Ego. Attaining a universality of this sort is Cutta parai yokam. Awareness of experiential contents of this state is mukti cakkiram or cutta parai cakkiram. Next the desciple is instructed to disengage himself from his union and attain a transcendence. Non-focusing on the awareness of that universal experience and the transcendence together is termed Transcendence-In-Parai. Consciousness is expanded further on effecting this existential state. Even this expanded consciousness must be transcended and on doing that one begins to have direct visions of the Supreme Agent himself. But this vision is immensely difficult. Prior to that there is immense bliss that floods and floods the Ego as a result of the activity of Cutta Para Sakti till the Ego is completely satiated. The Neyam, the inner most Regulator of the cosmic processes begins to appear when one stands even without the feeling that 'I had enough' of the supreme bliss. When this is attained the Neyam overpowers the individual completely, within and without, like the waves of the stormy seas. This state is conjoining with Neyam. However, this is only enjoying his Bliss-Energy and is not the attainment of mukti. Mukti results when Siva himself takes possession of the Ego like the alchemist transforming the base metals into gold.

Now however, a new and philosophically very significant problem is posed by the desciple.

The desciple observes: The existential state whereby the Ego if united with Siva and enjoys immense bliss is not a stable one. When one with Siva, the natural world appears as a non entity, unreal. However, when Ego disengages itself from that state of supreme bliss and re-enters the natural world of tattuvas, the world is real again and becomes the source of pleasures and pains.

The natural world in this way oscillates between being real and unreal - sometimes it is and sometimes it is not. The desciple compares himself with a magician who causes objects of various sorts to come and go. He demands an explanation for the reemergence of desires in him. The Guru explains it as follows:-

It is true that there is such a consciousness; existentially it is the case. But the world of tattuvas is real and Siva is real and the two are distinct. Their reality is undeniable as they have been cognised by the Ego. When the Ego disengages itself from them that in no way alters their reality - they being there as existents. Then what can oscillate however, is their reality status in the consciousness of Ego. The consciousness of the world as real can shift to consciousness of the world as unreal, which is the case. And this is due to vasana - an after-image that is left behind by the brilliance of Siva-Consciousness that is supremely overpowering. An after-image of this experience persists affecting the cognition of the world of tattuvas and causing the Ego to have a consciousness of the world as unreal. This consciousness, when it appears, must be tested for its reality, examined for its authenticity for being freed of delusions.

Being embodied in a psycho-physical body is also a cause of such delusions. But such causes will persist as long as one lives in a psycho-physical frame.

The Guru then describes a strategy for living without being misled by such delusions. The Ego in itself is incapable of effecting any cognitions and hence of generating any consciousness or knowledge. It is only the Supreme Agent who is capable of this. So the Ego must acquiesce with this and consider that whatever it does, it is not the Ego that is actually doing it but rather the Supreme Agent. Everything that is experienced with this attitude deeply embedded is in fact Siva-Experience. Even here if illusory consciousness emerges, the Ego should examine the consciousness, avoid being affected non-existent objects, lower down oneself in yoga and attain union with Siva again. When the Ego avoids the illusions and stabilises itself in the union with Siva, the waves of supreme bliss will flood the Ego without bounds. No desires for the world of tattuvas will adhere the Ego. Without speech, without thoughts, with the inside and outside fully integrated the Ego will exist in immence bliss, in the indestructible mukti. The Ego becomes homogeneous with Siva, one-with Siva Himself.

A number of important features of this *transformational* psychology must be isolated and discussed in order to derive further insights into the structure of scientific investigations.

The psychological progress of any individual who participates in such an endeavour can be clearly subdivided into three substages.

a) The progressive states of psychic disengagements that finally terminate in *sighting the 'ego' itself* and realizing that there is no perception without the tattuvas. The perceiving psyches or a psyche still engaged to instruments of perceptual knowledge is termed cakalan.

b) The endeavours of the psyche that has effected the disengagement from the world of tattuvas, to rid off from its constitution the intrinsic obstruent anava malam. Such a psyche is termed a pralayakalan. What are accomplished here are psycho-metamorphoses-self effected psychic evolution towards higher species.

c) The third stage begins with the sighting of Civa - the Supreme Regulator of all the cosmic processes. The experiences at this stage arise from sighting, uniting, being - one - with without other thoughts and so forth and finally reaching homogeneity with Civa Himself. The psyche is simultaneously Civa and the individual psyche; there is no experience other than the experience of Civa. The Psyche-experience and Civa-experience are one and the same.

The above activity is clearly a scientific activity where the claims of one are affirmed by another. However, this affirmation process is founded upon a hierachical difference - we have always the difference; the leader and the led. The led affirms or denies the leader by effecting either disengagements or psychic transformations. There are perspectival changes as well as psycho-metamorphoses in this process of affirmation. The logic of this process can be seen as follows:-

IV $S_L^{J_o} - M_o \xrightarrow[T]{} S_L^{J}1 - M_1$	:	S_L claims change of perspective M_o within the psycho-state J_o to M_1 within J_1 through technique T
S_P^K — $(S_L^{J}1 - M_1)$	:	S_P perceives the claims of S_L while remaining within K.
$S_P^K \xrightarrow[T]{} S_P^{J}1 - M_1$	:	S_P endeavours to change itself from S_P^K to $S_P^{J}1$ through technique T.
$S_P^{J}1$ — M_1	:	S_P attains the changes - becomes a $S_P^{J}1$ and affirms the validity of T.

The cycle can now be repeated till the end of the metamophorical process, the mukti.

What we have here is then inter-subjective confirmation of a peculiar sort. However, it can be considered as extention of the kind of intersubjective confirmation in self-perception studies that require psychic disengagements for objectifying internal states.

Transformational Psychology is not alone the substance of such psychological disciplines as the Psychoanalysis of Freud, the analytical Psychology of Jung, the humanistic psychology of Abraham Maslow, the psychosynthesis of Assagiogli but also the core of what goes on in the name of religion. In the Indian religious traditions this scientific temper is maintained and bulk of what are called philosophies in India are essentially theoretical explanations about the possibilities and outcomes of such activities. Philosophies in India have their roots in psychology.

What becomes the object of investigation in such a form of scientific activity is obviously the technique or procedures. The leader rests his claim on a certain technique. Such claims can be put in the form: If under conditions C, the technique T is effected on S, a change of S into S' will be the outcomes O. And it is this claim that is taken up by the led and affirmed or denied.

Where the leader is not able to furnish the details of the techniques for the claims he makes, then he would not also establish conditions for a scientific investigations of his claims. He would tend to maintain his thesis through claims of special powers, unique status, divine and special authority, privileged position, and frequently also through aggression and force, in short through means that are clearly unscientific and irrational. The thesis become dogmas - articles of faith rather than claims that allow scientific investigations. The psychic tendency of those enslaved by such dogmas will be to seek converts through proselytizing and propoganda and not through the force of scientific validity and rationality.

The psychic need for certainty and validity gets a false satisfaction through largeness of the crowd that holds on to the dogmas. The method of resolving differences of opinion changes from being refining the techniques of investigations and formulations to conflicts and battles.

History of religions justify such a psychological explanation of religious behaviour. The dominant tendencies in the Indian religious traditions be it Jainism, Buddhism, Saivism, Saktism, Vaishnavism and so forth have been, one could say, scientific in the sense outlined above. The tendencies to depart from this norm e.g. Brahmans' claim of the special status of the Vedas, have been happily criticized and eliminated as a cultural force. The semitic faiths on the other hand, seem to have done just the reverse - they have eliminated the emergence of the scientific tendencies within in favour of the non-scientific, the irrational. This may explain the birth of science in the West in conflict with the religious authorities, an antagonism that seems to persist to this day, and the absence of such a sharp differentiation in India and the Orient.

It seems to be reasonably certain that with the expansion of the social sciences, the transformational psychology of Cirrampalavar, will become ultimately the norm of every culture. It's rationality will ensure its acceptance by all thinking men. There is within the human psyche a need for a rational foundation for its beliefs and even if there are temporary successes for the irrational tendencies, ultimately one can hope, the rational tendency will triumph.

In the context of tranformational psychology, the techniques and procedures become peculiarly important; they are in fact the objects of study. Now the ques-

tion arises: Isn't this true of all the different psychologies? In fact, isn't it true that all sciences are studies about techniques, procedures, operations, actions and so forth, that knowledge is what is attained through such means? This is the view of Saiva Siddhanta and "Tattuva-prakasam", a massive text composed by Tattuvaprakar, who, interestingly enough is a direct desciple of Cirrampala Natikal, describes this perspective most elaborately. He recasts the whole spectrum of human activity into sixteen classes, deriving the taxonomy for this classification form the four basic agamic concepts of cariyai, kriyai, yokam and jnanam. Even the philosophical and logical thinking of man is subsumed under a category of intellectual activity termed 'jnanatil jnanam'.

Saiva Siddhanta also goes further. The transformational psychology is a discipline for a psyche to effect its own higher level metamorphoses using the physical, mental and other instrumentalities its biological composition favours it with. The endeavour for liberation is a conscious acceleration of the evolutionary progress of the psyche. With this insight when we look at the past, it becomes clear that the psyches must have been evolving rather unconsciously mediated by the various courses of action they have taken, inheriting different biological makeups determined by the courses of action they had chosen. When the unconscious psychic metamorphoses has reached a certain higher level progress, the psyches attain a distinct ability viz. the ability for self-conscious reflection. It is this ability that is the universal species characteristics of the human beings. With this ability there also occurs in the consciousness the possibility for being higher kind of selfs and the possibility for effecting this change by means of certain techniques and procedures. This consciousness is the foundation of culture which can be seen very broadly as a system of values that determine what kind of activities are permissible and what are not for the members of the cultural group. With this selectivity begins cultural differences and hence along with it differences in behavioural dispositions and affective states.

It is possible now to explain in clearer terms what is meant of agamic psychology. The agamic psychology is the formulation of human rationality itself. It is the most comprehensive system that seeks to give credibility to every aspect of human endeavour that is consistent with rationality. It seeks to provide an explanation for every domain of human knowledge by taking the view that without any exception all human knowledge are outcomes of techniques procedures, operations and so forth, in short of human actions in the broadest sense. As Meykandar has already noted all human knowledge is conditioned or asat, outcomes of actions of one kind or other. The only exception to this is the limiting case - the consciousness state of the psyche in the ultimate state of being i.e. para mukti. The unliberated does this and that to attain liberation but on attaining this absolute liberation which is not merely an outcome of action, the endeavours cease. And along with it the applicability of the concepts developed for describing the situation during the unliberated phase. It is a state outside the human and hence beyond the reach of the human conceptual categories.

Process Calculus, as conceptualized, is the means for describing the entire range of human knowledge. It is a calculus that includes the hitherto known techniques, objects, states, processes, propositions and so forth. Nothing that can emerge in human consciousness should be beyond its power to represent; no 'syntax' of human activity beyond its power to display. What has been described is only a tiny fraction obviously grossly

inadequate even to represent and display what we already know. But enlarging it to fulfill this role is only a technical problem, a problem that can be overcome through international collective effort.

This calculus is also growth oriented. It can never be complete and there will never come a time when we can say with absolute certainty that we have in possession all that needs to be known and can be known. As long as we remain human, there will always be something still unknown. The calculus will reflect this state by allowing for the addition of distinct elements into its body as a permanent feature. In other words, it will not be in itself axiomatic but everything that is axiomatic will be part of it, delimited to a range of techniques and domain of objects.

4. Some Implications for the Social Sciences

The admission of hierarchical differences and the incorporation of the norms of science in interpersonal behaviour by focussing or insisting upon the explict mention of techniques or procedures on which claims are based and which allows for verification of claims are the essential features of Agamic psychology. There are areas where verification can proceed without any psychic transformation of the verifier. There are areas where such a psychic metamorphoses is the substance of the claim. Even here Agamic psychology does not deny the applicability of the principles of scientific verification. In contrast to the dominant positivistic tendencies in the West, Agamic psychology does not restrict the notion of inter-subjective confirmation to an activity among equals and banish from science realms of human experience beyond the reach such possibilities. It will accept Freudian psychoanalysis, Jungian analytical psychology along with the transformational psychology of Cirrampalavar and similar psychological disciplines as significant branches of psychology with their own domain of human behaviour. Some methodological refinements may be necessarily but they are not suspect on account of an apriori notion of norms of science such as that of the positivist.

The agamic psychology reorientates the focus of attention of scientific studies towards the techniques, procedures, operations, actions and so forth. This enables also some new insights into the nature of human behaviour. Some aspects have already mentioned. We shall now consider some additional ones.

I. It appears that the bulk of our interpersonal or social behaviour is based upon the notions of expections and beliefs. At least the Expectation - Belief structure seems to be the foundation of organisational psychology. We shall consider some examples.

a) We started with the observation that the social psychology of guru-desciple clusters with the personal magnetism of the guru as the factor that holds the group together is rather difficult to explain in terms of the current concepts available in the various psychological disciplines. The transformational psychology of Cirrampalavar, a psychological system formulated in the context of a life style that we have described as guru-desciple clusters, provides, I think, an intuitively satisfactory explanation. From the point of view of transformational psychology, the guru can be seen to represent or to model a higher kind self for the desciples who would then aspire to become that kind of self. The powerful magnetism arises in virtue of the fact that the new self modeled is a self higher in the evolutionary scale. We have to assume that the selfs are predisposed to be attracted powerfully to anything that promises evolution into a higher

kind of being. The guru can be viewed also as a personality taken possession by a divine archetype (Ta. murtti). What the desciples see in a guru then is a portrayal of a higher personality type and as Jung has already observed the archetype of this higher self could be the source of the magnetic pull. The frequent conflation of the guru with the deity in Saiva and other literatures can be cited as evidence for such a view.

b) The genuine guru models a higher species of selfs. But there are many hierarchical social groups where leadership does not represent such a total higher alternative. In political parties, professional associations, industrial organisations, trade unions and so forth, the leader can be seen to represent a more able kind of person for the kinds activities the organisation stands for. But in some cases where the personal magnetism of the leader overlaps with task competency, some aspects of the psychology of the guru-desciple organisations filters in. This appears to be particularly the case in politics where the leader is loved, admired, emulated and sometimes even worshiped for the kind of person he is or for the kind of personality he has projected through the mass media. It is quite obvious that under the spell of such a magnetism there will be industrial, political and professional stability. Such periods of stability and peace frequently also coincide with significant productivity and advances. However, it should be noted that such periods can also be stagnant and very resistant to change.

c) Agamic psychology rests upon the realities of both higher-lower social organisations as well as that of a community of equals. It also rests upon the possibility of a scientific approach for enabling the lower equal the higher. Such principles can form the foundation of a culture - the socio-political philosophies of a particular group of people. The Tamil society of the Cangkam epoch, the Saivite sub-culture of the post bakti period and so forth can be cited as examples of agamic cultures. The caste ridden Hindu society where social mobility is denied can be seen as a deviation from the agamic foundation. In a similar manner we can study more extensively the cultural foundations of the different societies with respect to the agamic quality of the underlying principles. The basic principles of agamic psychology provide a new insight, a new norm for studying the cultural foundations of different societies. Needless to say, historical epochs too can be subjected to similar kind of norms.

II. When we view existence from the perspectives of agamic psychology, we can recognise two basic psychic tendencies - one towards elaboration and the other towards liberation. The reasons are as follows:-

We have conceptualized the Process Calculus as a Universal Calculus - a calculus that provides a symbolic language for representing all forms of human knowledge including those beyond the capacities of natural language. We have also accepted transformational psychology where the selfs effect their own evolution to higher kinds of selfs the limiting case being an existential state of absolute perfection and purity without any ego desires or wants. Clearly then there are two options available for the psyches: either to effect cognitive growth through widening the range and scope of one's knowledge of Universal Calculus or strive after transcendence towards higher selfs. The former is what we have termed tendency towards elaboration and the latter towards liberation.

The two do not seem to be independent. The press towards liberation seems to set in only after considerable cognitive maturity. But cognitive maturity itself does not seem to originate desire for liberation. One could trap oneself in the process leading to more and more extensive knowledge and competencies. At the moment it is not clear (to me) how these basic tendencies interact to determine differences among individuals in a culture and also the generic features of different cultures. What is however important to note is that we have unearthed here two basic psychic tendencies of human beings that could be highly relevant for studying the personalities of individuals but hardly considered in any of the existing theories of personalities. Maslow's concept of self-actualization, though similar in some ways, is quite limited and narrow compared to the concept of self transformation of Cirrampalavar.

5. Conclusion

It is clear from the above brief remarks that in Agamic psychology we have a perspective for not alone studying human behaviour but also the other social sciences that is rather revolutionary. It would appear that though revolutionary compared to the prevalent and largely Western or Semitic perspectives for studying peoples and societies, it is not so for the ancient Tamils particularly those belonging to the Saivite sub-culture. In view of the enormous importance of this sub-culture of India for adding new dimensions for the social sciences, I would like to draw the attention of the scholars to the very extensive post-Meykandar Saiva Siddhanta literature that has not been studied with a seriousness it rightly deserves.

Postscript 1

The West was very late in producing psychological systems and what is meant by science there is quite frequently the material sciences rather the psychological sciences. The sciences that were analysed by Descarte, Kart, Hume and so forth were the physical sciences. Mathematics and Physics played crucial roles in the epistemological reflections of these great thinkers. The psychological sciences were modelled initially on the physical sciences and eventhough considerable advances have been made in the recent part and several new psychological systems have evolved, they still have not reached a stage where they form the foundations of philosophical reflections. This is reflected quite clearly in the writings of Karl Popper who advocates a variant of rationalism or empiricism that he has termed 'critical rationalism'.

Knowledge progresses by conjectures. The sources of these guesses, conjectures do not determine their validity. They have to be tested, criticized severely before becoming acceptable. They become scientific knowledge not because verification but because they resist refutations, many kinds of tests and all kinds of criticisms. Thus scientific knowledge is not one of absolute certainty - it has always the possibility of turning out to be erroneous. But we learn from our mistakes and our knowledge grows though we may not know that what we know is absolutely true. This is not scepticism for growth of knowledge is allowed and there is such a thing as objective truth. (Conjectures and Refutations, 1969, P. vii).

This, I think, is highly misleading philosophy which generalizes epistemological principles that are most probably applicable only to the physical sciences to the whole of scientific knowledge.

We can identify three main arguments in the above thesis worth critical considerations:-

a) scientific cliams must allow for criticisms and refutations.

b) scientific statements cannot be shown to be positively true that is cannot be verified but can only be refuted or falsified.

c) there cannot be absolute certainty in scientific knowledge or claims.

There can be no quarrel with the first argument. This is the substance of rationality and has long been recognised as even in India. Thiruvalluvar 300 A.D.) expressed this very clearly in the couplet:

"epporul yaryarvay ketpinum apporul meyporul kanpa tarivu"
"No matter what and from whom it is the mark of intelligence to ascertain the validity of what is heard"

Agamic psychology can be seen to subscribe to this for it recognise no sources as absolutely authoritative. Transformational psychology of Cirrampalavar can be seen as the outcome of this attitude even in the most recalcitrant area of human behaviour viz. religion.

The second and third arguments however present problems.

We can distinguish two types of scientific knowledge - actional knowledge and inductive knowledge. Inductive knowledge is found in nature through experimentation and observation. It's possibility rests on the regularity that exists in nature, in the processes that constitute nature. Such knowledge always rests upon a process of discovery, a going beyond what is immediately available for inspection or observation.

Actional knowledge is knowledge of actions, conditions of effecting them and discovering what are brought about by such effectations. This was very clearly perceived by Tolkappiyar (3rd century B.C.) himself who can be considered the world's first social scientist. For we have the sutra:

vinaiye ceyvatu ceyappatu **porule**
nilane kalam karuvi enra
innatirku itu payan aka ennum
anna marapin irantotum tokaiyi
ayettenpa tolil mutal nilaiye
(Tol. 596)

This concept of knowledge was the epistemogical foundation of even Saiva Siddhanta. For vakisar (10th century A.D.) in his 'jnanamirtam' defines knowledge as of the sort 'ennai ceyyin ennayam (Akaval 26) i.e. being aware of what actions bring about what outcomes'.

Now while it may be true that inductive knowledge, which always involves going beyond what is given, can only be falsified, this may not be the case with actional knowledge. On the contrary any claim of the sort of action X under conditions C brings about the outcome O' can be verified simply by effecting it under the specified conditions (and in the specified manner) and ascertaining whether the posited outcome O is in fact realized. If it is the case then it is verified, if not then falsified. Agamic psychology, it should be recalled, rests upon the epistemological foundation of actional knowledge. In this scientific enterprise then the scientific claims can be verified as much as falsified.

The actional concept of knowledge also poses problems about the certainty issue. If we know what 'kicking' is, are we not also absolutely certain that when it is effected, there must be at least an animate agent who in fact brings it about and possibly also there is an object on which it is effected? This may be countered by saying that knowledge of actions is not what we call scientific knowledge or empirical knowledge. Scientific knowledge is theoretical and is of the type that accounts for the regularity that exists in nature.

But is it so? This concept of scientific knowledge admits only of inductive

knowledge and may possibly be the case only with the physical processes. But the psychological knowledge of creatures which includes what they can do is scientific but not inductive. And part of a scientific knowledge of what creatures can do is to know what actions are. And therefore, from the perspective of actional concept of knowledge we cannot deny scientific status to knowledge of actions.

Now such constituents as criticizing, testing, refuting, falsifying and so forth of the scientific activity as explained by Popper, it must be noted, are actions. These are the sorts of things the scientists do for ascertaining the validity of certain claims. We have to enquire then into the epistemological foundation or belief that underlies such an activity. It appears to me that unless one is absolutely certain in the efficacy of such human actions, one will not indulge in such activities at all in such an earnest manner. The nature of scientific activity itself betrays a feeling of absolute certainty in the efficacy of such actions as criticism, testing and so forth for revealing what is true and what is not. Where such a belief is non-existent, there is no scientific activity as such at all.

It much also be noted that what is described as Civajnana in Saiva Siddhanta is of peculiar sort. It is a vision, a darsana, a 'seeing' that is conditional upon the elimination of all the enslaving, restricting, constraning factors in the psychic constitutions. The malas are eliminated from the innermost self through certain techniques or procedures and hence in a sense the vision of Civa is an outcome of psycho-transformational processes brought about by certain techniques. The elimination of malas, in particular anava, coincides with the vision of Civa, just like the removal of the cataract in the eyes coincides with normal vision of objects around. A state of being free from anava is a state of desireless existence, a state where conditions for the emergence intentionalities are absent. Now it appears to me that the modalities 'certain', 'uncertain', 'absolutely certain' and so forth are reflective of certain epistemic performances that rest upon there being intentionalities (and hence desires) of some sort or other. This means that knowledge of Civa, the content of Civa-consciousness is not the sort of knowledge that can be qualified by the epistemic modalities. It is beyond such categories. It is in other words not asat but sat as Meykander has observed. There appears to be no place for such a form of scientific knowledge in the 'critical rationalism' of Karl Popper.

Postscript 2

There are some recent developments in psychology particularly within the related disciplines of sociology, anthropology, ethnology and so forth that are on the whole germane to the main principles of Agamic Psychology as conceptualized in this paper. But such developments are still in their infancy and have not matured to a form where they can incorporate or displace psychoanalysis, analytical psychology, psychosynthesis, transpersonal psychology, humanistic psychologic and so forth. As already noted, in the existing systems there is nothing comparable to the transformational psychology of Cirrampalavar. The closest to this in spirit is Abraham Maslow's brand of Humanistic psychology (See his Toward a Psychology of Being, 1968) with its emphasis on self-actualization. But it differs from the above in ruling out the relevance of Unconscious or Collective Unconscious and such other entities for explaining behaviour. (For further details see K Loganatha Mutharayan, 1983(a)).

As already mentioned Agamic Psychology takes actions as the central element in the study of human and animal behaviour without putting any apriori constraints

on what should be admitted and what not for a proper scientific study. It admits whatever is relevant for a truly objective study. Since there are some differences here between Agamic Psychology and the current psychological systems, some aspects of these differences will be noted briefly below.

The actionistic perspective in the concept of behaviour, and the relevance of the perception of intentions of actors in interpersonal behaviour are important elements in the psychology that is presupposed in such recent developments as self-perception theory in cognitive sociology and so forth. (See Jones & Davis (1978), Daryl J. Bem (1978), Noel W. Shutz Jr. (1975), Alan Howard (1982), Aaron V. Cicourel (1973). See also my 'Hermeneutical Model' based on man as 'icca-jnanam-kriya corubi' concept in K Loganatha Mutharayan 1981, 1982 & 1983 (a). For a philosophic defence of the position see Gauld & Shotter (1977), Goldman (1970) just to name a few).

The relevance of person perception in interpersonal behaviour appears to have been highlighted in the writings of Fritz Herder (Cf. Jones & Davis, 1978). By 'person perception' is meant the process whereby the causal antecedents of action are infered or interpreted utilising whatever cues that are available. The search for causal antecedents comes to a stop when an intention or motive for the action is arrived at. This aspect of person perception is termed attribution and there are several coditions or rules for the correct attribution. Such things as the prior knowledge of the stable individual disposition of the actor (personality?), the contextual conditions of the actions, the linguistic and paralinguistics cues, the effects of the actions and so forth are weighed carefully in the attributive process. Jones & Davis also point out the differences between intentional, incidental and accidental actions in terms of the knowledge the actor has about the effects of his actions. In the Hermeneutical model I have also drawn attention for the need to distinguish, intentional, routinized and translational actions using for this purpose the perceived control the actor has over his actions.

Another condition for attributing intention is ability. When a person's actions bring about a change in the pre-existing conditions, it is important for attributing intentions whether the person in question is capable of producing these consequences in response to his intentions. In the Hermeneutical Model, such abilities are subsumed under the category of skills that a person has mastered.

The personal qualities of a person are usually perceived in such interactional situations. But depending upon the contextual conditions of actions such attributions may or may not be truly characteristic of the person i.e. there may or may not be correspondence. This is how Jones & Davis (ibid, P. 287) would explain it: "When the perceiver infers personal characteristics as a way of accounting for action, these personal characteristics may vary in the degree to which they correspond with the behaviour they are intended to explain. Correspondence refers to the extent that the act and the underlying characteristic or attribute are similarly described by inference". Cultural assumptions or social stereotype may obscure the true significance of an action.

"The more distinctive reasons a person has for an action, and the more these reasons are widely shared in the culture, the less informative that action is concerning the identifying attributes of the person" (ibid P. 292).

Despite several improvements and further developments in the attribution theory described above (e.g. self-perception theory of Daryl J. Bem and so forth) what is clear is that it is still a study of

interpersonal behaviour of people who are the attributing type. The subjective conditions of the attributing behaviour and a *systematic study* of how to change this subjectivity of the perceiver still remain foreign to this and similar cognitive theories in social psychology. The stimuli that serve as objects, contexts and cues contribute towards perceptual knowledge; the subjectivity of the person also determines what stimuli are selected for being perceived. The attributional processes are conditioned by both the subjective and the objective. The investigating scientist is also not free of a 'subjective' culture that he brings to bear upon his interpretations. All such investigations are then locked up within subjective cultures of various sorts. The scientific 'facts' are only relatively true - true in relation to the quality of subjectively of the person. This was very clearly articulated by Caccitananta *Pillai* (*19th century*) (Vedanta Illakkanam Sutra 14).

"*cintai evvaro cekam avvanam*
cekamatu evvaro cintai avvanam
aka evaevarkkum kantalin enrum
tolaiya mayakkat totartalin arinar
porulaip porulat tunintu amaintanare"

"It appears for all and always that
their thoughts determine their world
the world in turn determine their thoughts
the wise ones knowing this to be endless
learned to see objects in their true objectivity".

The gaining of knowledge of objects in their true objectivity requires the elimination of the perspective determining subjectivity. This is not the same as *replacing one perspective with another* or one set of paradigms with another. What is suggested is a transformation of the observer, the perceiver so that he does not 'see' within this or that perspective. In other words the truely scientific observer has to be free of this or that need or intentions. This process of 'dis-intentionalising' a person is part of the concern of tranformational psychology of Cirrampalavar. The idea was presented as early as the third century A.D. by Thiruvalluvar in terms of the concept of 'parru arran parru' (motiveless disposition) but the technology for realising this in a scientific manner had to wait a thousand years for the arrival of cirrampalavar.

A psychology concerned with reconstituting subjectivity so that it is simultaneously an evolution into a higher kind of self, will be of course concerned with identifying the constituents of subjectivity and the manner in which they generate the different subjectivities. Such constituents are called tattuvas in Saiva Siddhanta and there are many texts devoted to extensive discussions of such issues. (For a brief account see my introduction to an English translation of Jnanamirta Kattalai.)

In order to 'see' in true objectivity a person has to liberate himself from the tattuvas that unconsciously determine his subjectivity. A person has to be autonomous; he has to free himself from being trapped (unconsciously perhaps) by this or that subjectivity in order to gain that 'perspectivelessness' that would reveal objects in their true objectivity.

Gaining this 'perspectivelessness' is not withdrawing into one's own subjectivity and identifying oneself (with vairagya and so forth) only with the ground of subjectivity (also called Brahman) as Caccitananta Pillai would recommend. This is the typical position articulated in some form or other by the so called Vedantic philosophers, who are unfortunately the most vociferous in the Indian scene.

In Saiva Siddhanta this 'perspectivelessness' is a positivity towards the world

attained through transforming an individual's self-centered need-disposition to universalistic love-disposition. This is done through flooding the innermost recesses of the psyche with 'Aru!', the Power of Grace, a power that is exercised by the Cosmic Regulator. This Power 'purifies' a psyche through freeing it from the dominance of constituents that tend towards determining a self-centered perspective, a need-based subjectivity as his perspective, as his subjectivity.

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The Megalithic Culture of South India - A Reappraisal

by

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In South India, particularly in the far south the urbanisation dawns with the historical period during circa 3rd century B.C. Sangam literature too echoes this process. Megalithic culture in turn is the forerunner of this historical phenomenon and hence a study of this phase of South Indian archaeology is all the more important for the proper evaluation of the origins of the early Dravidian Civilization. It is true that South India is famous for its Temples but in reality these megaliths outnumber them. Thus both qualitatively and quantitatively the analysis of the role of megalithic culture in the development of early South Indian society is a desideratum.

Now coming to megalithic culture, it is often claimed that, of all the enigmas of archaeology, it is probably the most intriguing. It is regarded today by some scholars as the first world-wide movement, by others as a well defined stage of civilization, while still others deny completely its existence as an identifiable and meaningful cultural entity. In Archaeology it is defined as a tomb built with big stones in natural forms of roughly dressed or even a grave marked with a prodigious rude stone or an excavation in soft rocks containing human remains of the dead. It is also applied to the erection of huge stones either memorial or religious in function. Besides graves without any lithic appendage, but by virtue of their possession of certain other complex traits, especially the pottery, commonly found in the other type of megaliths are also classed as megaliths. The word "Megalith" is derived from the Greek words megas which means great and lithos-stone. It was originally introduced by antiquarians to describe a fairly easily definable class of monuments in Western and Northern Europe, consisting of huge and undressed stones and termed in Celtic as dolmens, cromlechs and menhirs. Subsequently it has been extended to cover a far more miscellaneous collection and excavation all over the world.

In different parts of the world there began the custom of erecting megaliths on a large scale among different communities from the neolithic times onwards and this continued in the bronze age and upto the early historic period. The megalithic monuments are among the most widespread remains of man both in time and space.

They are found in many parts of the world in Western Europe, Mediterranean region, Western Asia, South Asia, South East Asia and Melanesia. The origin of these monuments is placed in the Eastern Mediterranean.

In respect of South Asia, the distribution of Indian megaliths have been grouped into various zones, of which the South Indian zone forms a class by itself. In Peninsular India and Sri Lanka, iron and Black-and-Red Ware occurs in direct association with megaliths and hence the term iron age has often been used interchangeably with archaeological labels referring to the construction of stone monuments, viz. megalithic period, megalithism and even megalithic civilization. The focus of this culture lies south of Vindhyan range, particularly in the watersheds of Godavari ad Krishna and along the eastern and western Ghats. The Island of Sri Lanka seems to be the southernmost extension of this culture.

Megaliths are worldwide in distribution. The underlying forces behind this lay according to some scholars in trade or religion but others feel that it is the idea of stone grave that diffused from people to people and land to land. Whatever the case may be, their wide distribution does not imply any cultural or chronological unity. In India even today it is a living tradition among the north eastern tribes such as Khasis and Mundas and in the south among the Malayarayans and other tribes. Recently Leshnik (1975 : 40-67) estimated about 15,000 cemeteries, each containing an average of 100 burials and thus amounting to 1,50,0000 in number.

Despite our more than hundred and fifty years of study only in few cases have the associated habitational debris been located and probed into and hence the problem still defies an easy and acceptable solution. All that we know about this people is derived from the grave goods, desposited in these monuments and the mode of the disposal of the dead adopted in the erection of monuments. The reasons for this sorry state of affair are not far to seek. The complex pattern of widely different burial practices are lumped together and comprised in the term "megalith". Moreover, the important traits of this culture, such as Black-and-Red ware, iron, horse and the stone architecture, are again treated together without separating these elements and to see whether these are the result of mingling of a single or many traditions and developments over a long period. The necessity of this line of approach had been hinted at by Subba Rao (1958: 122-123) more than two decades ago. He observed that "it is necessary to separate the pottery and the megalithic idea of ritual". However the recent studies of Sundara (1972: 119-124) has shown that Subba Rao line of thinking has much substance in it. The absence of horizontal excavations of at least some habitational sites, the failure to look out for more habitational sites, the absence of clear understanding of the economic base of this culture, coupled with the inherent idea amongst the archaeologists to associate the new traits of a culture as mainly due to 'colonization' are some of the other factors which had contributed to this phenomenon.

As Kennedy (1975: 38-39) rightly observed by the middle of the present century, there had occurred two major changes in the historical development of megalithic studies. Firstly, the question of physical, cultural and linguistic origins of the megalith builders came to be dealt with increasingly by professionally trained anthropologists within the specialised fields of pre-historic archaeology and physical anthropology, thus bringing to a close the period of quasi scientific contributions made by classically oriented antiquarians and exponents of literary exegesis and philosophy. Secondly, those theories of megalithism discussed here gave way by

1950 to a point of view that came to be shared by a majority of scholars. This was that the megalithic cultural complex had been imported to Peninsular India from outside by Dravidian speaking acculturators who imposed their language and certain racial traits upon the non-Dravidian speaking aborigines.

The structural similarities between the megaliths of India and those of the Western Europe, Mediterranean region, Central Asia, Middle East, Persian gulf region and Egypt had led various scholars to identify the original home of the megaliths, in one or the other of the above regions. For Childe (1948: 5-13) and Sundara (1975: 196) traced the original home in Western Europe and Mediterranean region and envisaged a migration through sea. Wheeler (1959) saw the possible resemblance of Indian megalithic types with the megalithic structures of west Asia and Europe and suggested Karachi as the spring board of the megalithic 'idea' for entry into South India. Later Lal (1963: 579-581) and Fairservis (1971: 375-6) saw much truth in this hypothesis.

Haimendorf (1953: 127-135) on the other hand was of the opinion that the migration of the megalith builders took place by sea from the mediterranean coast. They followed the southward movement along the west coast. Ramachandran (1969: 59-65) saw parallels between the rock-out caves of Kerala and the similar ones from Palestine and Cyprus. Banerjee (1965: 264) Subba Rao (1958: 121) and later Gururaja Rao (1972) suggested that the Indian megaliths were inspired by the cairn burials of Baluchistan and that the megalith builders came to South India through north-western India. Later Ramachandran (1972: 322-335) expressed the view that the south eastern Arabia, with its outlet in the gulf of Oman, may be taken as a epicentre of the Baluchi cairns. Ghosh (1974: 81-82) traced the origin to Yeman. Gordon (1958) on the other hand, was of the opinion that the megalithic idea might have come from across the sea through Arabia. Lal (I.A.R.1964: 67-70) envisaged a cultural relationship between Nubia and South India in the second-first millennium B.C., particularly with the 'C' group people at Tumas.

Allchins (1968: 229-30) and later Soundararajan (1969: 69-89) believed that the South Indian graves were of a developing complex with several streams of influences combining in them. While admitting that some appear as a development of the indigenous neolithic-chalcolithic burial customs of Deccan, Allchins said the others drew their influence from south-western Arabia to northern Iran. Finally they opined that during the first millennium B.C. India received them as influences by dint of maritime contact with the Middle East. However, according to Dikshit (1969: 1-12) it was a sort of colonisation by the west Asian trading communities entering South India towards the close of the 2nd millennium B.C. through the western coast.

On the other hand Gupta (1972) while emphatically denying that there could be any movement of idea without the movement of people, proposed the arrival of the megalith builders in two waves. One came overland and the other came through sea, both from the regions west of India. He is of the opinion that the areas around the Persion gulf or the gulf of Oman may provide the key to the problem relating to the origin of the Indian megaliths.

Recently Leshnik (1975) who called this culture as "Pandukal complex" has put forward a theory of nomadic origin for the Indian megaliths. He feels that there is a putative association of graves with the habitation sites and the association of Black-and-Red ware and iron with the graves is circumstantial. While elaborating his theory he feels that at those few excavated sites where graves occur near supposed habitations, the remains can in

each case also be understood as those of camping site, perhaps, one recurrently visited. While discounting the indigenous origin of the megaliths, he says that "these appear too suddenly in the archaeological record, in too elaborate a form, and throws out too many detailed similarities with burials elsewhere to support such a notion". His other contention is that this is a "Different burial tradition than neolithic, suggestive of wholly different eschatological beliefs and points to a different religion and indeed represent a major cultural change"... The ancestory of Pandukal practices seem then, to lie in Persia and is linked to Caucasian influences. ...These folk entered India through north-western parts and spread throughout south somewhere between third century B.C. - second century A.D. ...Whatever the truth, the effect of the Pandukal people qua nomadic pastoralists on the subsequent development of South Indian society seems minimal and in that sense their presence represents nearly an episode in the course of Dravidian history".

More recently Nagaraju and Gururaja Rao (1979: 321-328) have convincingly shown as to how the iron age megalithic culture overlaps with the proceeding neolithic-chalcolithic phase and later early historic phase. Finally while meeting the arguments of Leshnik with regard to the putative association of graves with habitation they observed that "However strong the above arguments may seem, when a close similarity of Black-and-Red ware from burials and habitations particularly the techniques, fabric, shapes and common graffiti is taken into consideration and the fact that the pottery-the trait of the iron age is to be seen as the single major ceramic component of the megalithic graves, their contemporaneity can hardly be considered coincidental".

However, the above survey indicates the prevalence of two schools of thinking among archaeologists, namely the megalithic colonization both by land and sea and the other is the borrowal of idea of architecture 'through maritime contacts'. Finally there is little evidence for the nomadic origin of the megaliths which we shall discuss later.

Now let us have a look at the archaeological record. While discussing the material culture of the iron age of South India Allchins (1968: 232) observed that "Certainly the excavated settlements do not give much indication of any major change in the way of life accompanying the arrival of iron. One is left with a feeling of a remarkable conservatism, among the population of South India throughout the period. There can be little doubt that many of the traits already established in the neolithic period persisted right through the iron age ...".

The above view of Allchins clearly shows that there is little evidence for change in the material culture of the neolithic-chalcolithic people, with the coming of iron associated with pottery and megalithic architecture. After all culture is a historical process. During this process a few traditions may be added or some old ones may be rejected. Yet it is a synthetic whole consisting of functionally interrelated parts or subsystems and as such any change in one of the subsystems should bring about specific changes in others. In an archaeological record evolution could be construed as a change in form through time. It also means adaptation, the more efficient exploitation of the environment. This view of culture clearly rules out any radical change in the material culture of the neolithic-chalcolithic people with the arrival of a new tradition or traits accompanying the megalithic architecture.

To understand the cultural process of the subcontinent more correctly before the introduction of megalithic culture in the first millennium or so let us have a

view of the cultures which proceeded it. The most important amongst these are the Harappan culture, the chalcolothic cultures of central India and Deccan and the neolithic culture of South India. Roy-chowdhury (1972: 269-305) who studied the physical remains of the Indus valley culture expressed the view that "it was a make up of a mediterranean-Austroloid complex and a Mediterranean type perse were the principal components of the population". However, viewing the physical types of the chalcolithic-neolithic cultures he opined that "the physical type is still the same as we have noticed at Indus sites further north-a mediterranean physical type, mixed to a certain degree with Austroloid elements ..., we can safely assume that the neolithic-chalcolithic culture of the Deccan existed side by side with the Indus civilization during 2500-1500 B.C. And yet the same type of people comprised the population in both the areas or cultural zones, if we leave out the small percentage of extra-neous elements here and there". The above view has been corroborated by the Linguists as well (Chatterjee, S.K. 1954: 329-345; Rulen 1975). With regard to the authors of the Deccan neolithic culture, Allchins (1968: 326) Paddayya (1973: 86) and Sundara (1975: 195) too concur with the view of Roychowdhury.

Now turning to the archaeological record Allchins (1968: 316) observed a change in the final centuries of the 2nd mellennium B.C. amongst the neolithic-chalcolithic communities. According to them 'there are many indications of intrusive elements from the north and west, a significant change is seen in the burial customs, with the appearance of pits lined with stone slabs, in grave yards remote from the settlements. This new practice may be regarded as the herald of the iron age burial rites of the Peninsula'.

The occurrence of the burials away from the settlement at Tekwada (I.A.R. 1956-57; 18-19), Terdal (Sundara 1969: 23-33) as well as the evidence for the overlap of the megalithic Black-and-Red were pottery and the burial tradition in the upper neolithic phase in sites like Piklihal, (Allchin, F.R. 1960: 20-24), Tekkalakota (Nagaraja Rao, M.S. 1965: 27-33) T. Narasipur (Seshadri, M. 1971: 19-21) perhaps shows that the Black-and-Red ware, iron and the megalithic burial tradition are of different origin which later only came to be associated together. Sundara (1968: 1-21) during the course of his exploration at Krishna-Tungabadhra valley observed at several sites in the valley megalithic culture characterised by the Black-and-Red ware, iron and rough stone tomb building practices overlapping with the upper phase of the neolithic culture as in Brahmagiri, Hallur, Tekkala-kota and Narasipur. Similar feature has been noticed at Kesarapalle (I.A.R. 1961-62: 32-34) in Andhra Pradesh as well. Black-and-Red ware is represented here in period I which is super imposed by iron and megaliths in period II ... The occur-rence of Black-and-Red ware in chalcolithic context in the above sites shows its early origin in the chalcolithic phase.

Serveral Scholars have studied the problem of Black-and-Red ware in Indian archaeology and have arrived at different conclusions. However, a notable break-through in the systematic study of this ware was made by Srivatsava (1971: 372-417). He sought to analyse the problem on the basis of typology, fabric, chrono-logical position and the cultural context in which the ware occurs. His study revealed that this ware should not be associated with a single group of people or culture and there is nothing common among the Black-and-Red ware of different regions within India excepting for the similarity in the technique of manufacturing. Even in the later aspect, there are variations and the types produced in different regions are also not closely similar.

Srivatsava classifies the Black-and-Red ware occurring sites into various zones ranging from A.F. Of these, the regions E and F are important to our study and we shall deal with them in some detail. His region E corresponds to the present day states of Maharashtra and northern Mysore and F comprised areas of southern Mysore, Kerala, Tamil Nadu, Andhra Pradesh and Orissa. His contention is that the origin of this ware in region E goes back to a period not later than the middle of the 2nd millennium B.C. and it occurs in neolithic-chalcolithic context in this region and the technique of manufacturing was borrowed from region E by the people of the region F. In this context it is rather important to note that when the ware occurs in the chalcolithic and neolithic contexts, the burnishing aspect of this ware is remarkably absent as is evident from the excavations at Tekkalakota (Nagaraja Rao, M.S. 1965), Brahmagiri (Wheeler 1948), Piklihal (Allchin, F.R. 1960) and Maski (Thapar 1957). This process began to be developed slowly in subsequent times only.

The above survey clearly shows that the Black-and-Red ware pottery which later became associated with megalithic culture had an earlier beginning in pre-iron age contexts going as far back as 1700 B.C. even but with the passage of time it became a diagnostic element in the iron age burial complex. It also shows as to how the neolithic-chalcolithic people started practicing megalithic burial forms in the upper neolithic phase, where burials started appearing away from the habitations. The evidences at Tekwada and Terdal are clear examples of this kind. It may even be that these people themselves evolved this system independently or borrowed the idea from the Harappans. The stone architecture probably got elaborated in the regions of northern Karnataka and Kerala, where ample raw material is available. This may again be due to maritime contacts with the outside world. This had been well observed by Soundararajan (1963: 11) who says that "the megalithic architecture had been acquired at a subsequent stage and by inductive contacts with the mediterranean culture zones in an era of such adventurous entrepreneurs as the Phonesisans". This clearly establishes our view that the megalithic architecture did not reach India by way of colonization.

There has been considerable discussion about the change from limited economy of the neolithic pastoralists to the intensive agro-industrial set up of the so called colonizing hordes of the megalith builders. During their exploration of new areas will it not be possible for the neolithic people to change their limited agricultural base? Certainly by this time these people started controlling the environment and exploiting it more efficiently and profitably. Hence the settlements closer to the tanks and the origin of tank irrigation itself could be construed as an invention necessitated by the discovery of new potential areas. In the same way it is plausible to believe that the potentialities of iron and stone also came to be realised. Assured food supply not only enriched them but also gave them greater opportunities of leisure and freedom to manipulate the environment with a better functional utilization as known from the iron tools and architecture. This is also evident from the enormous care bestowed on the megalithic architecture as well as the large variety of grave goods.

Their acquaintance with horse could even be interpreted as an acquired trait through trade for a better functional utilization of distant travel, local tribal warfare as common in sedantary agriculturists, instead of a trait of nomads as often described. At this juncture, it is relevant to take cognisance of the recent study of Murty and Sontheimer (1980: 163-184). They made use of the available ethnographic data in southern Deccan for

interpreting the archaeological neolithic culture. They concluded that this geographical area had supported the population of three modes, all at one time. They are (1) the nomadic hunting and food gathering type (2) sedentary cattle keeping cum agricultural type and (3) sheep-pastoral type. Nevertheless they observed that the importance of horse had been realised by the iron age times and both these nomadic and village based communities living in the semi-arid, millet-growing and pastoral areas found horse very useful. For the nomadic pastoralists like the Kuruvas and Dhangars the horse is of utmost important as a pack animal. For the settled farmers with large herds of cattle, the horse was of greatest use for petty war fares especially for pastures and finally they conceeded on theoretical grounds that it is possible for the early use of horse before the iron age. Their view is corroborated by the occurrence of remains of horse at Hallur and Sanganakally in pre-iron age contexts (Allchin 1979: 245-248). Rock paintings (Allchin and Allchin 1968: 298) at many neolithic sites in Karnataka consisting of groups of horse riders carrying metal axes clearly show that the neolithic-chalcolithic people were acquainted with horse in pre-iron age contexts. The burials of horses in the iron age contexts could be construed as a reflection of the attachment bestowed by certain groups towards this animal similar to the horse and chariot burials of the Chinese bronze age society (Watson, W. 1974).

Better and efficient exploitation of environment is reflected in iron tools also. A broad spectrum of similar tools and weapons of iron found in a number of megalithic sites suggests a cohesive group of iron workers. This homogeneity may be accounted for in two ways: Either these were the handiwork of itinerant craftsmen for which ethnological parallel exists even today in India. (Soundararajan 1963). Or else they could be even weapons of war apart from the tools of agriculture and reflect the development of tribes and tribal warfare due to territorial rights or even due to the desire of one group to subdue the other. In short, the similarity of functions would explain their homogeneity.

Then the modest view of the megalithic culture is that it is not necessarily due to the movements and settlement of one particular community or race. Owing to cultural and commercial contacts among these regions, the idea of using huge rough stones for burials originated in one or more centres diffused from one or many regions to other regions, and was received directly or indirectly and adopted according to local environment and cultural traditions. As a result of these circumstances there occurred considerable differences and some common features between megaliths of different regions or countries. This had been observed more correctly by Daniel (1961: 100). According to him "megaliths do not represent a single unitary movement but contacts along the same route over many centuries". Thus one could agree with the often repeated idiom in the archaeological interpretation that the 'ideas have wings'.

The above view of the origin of the megalithic culture is also confirmed by the study of physical remains of the builders by Kennedy (1975: 75-80) who observed that 'correlated with these lines of evidence reflecting the notion that the megalithic builders were of a uniform phenotypic pattern characterised by the sharing of one or more physical features are those considerations of the skeletal record that reject the thesis of a catastrophic invasion of new people into Peninsular India with the introduction of the megalithic cultural complex... the skeletal record of the megalithic builders does not provide the slightest reason to accept the hypothesis of a sudden displacement of populations in connection with the beginn-

ings of the megalithic cultural complex... The living people of Peninsular India constitute a biological continuum with their megalithic antecedants as represented by a broad range of phenotypic characteristics. Then he poses a pertinent question since Megalithism today is not confined to populations sharing similar phenotypic expressions of a set of physical characters, for what reason should a commonality of biological traits or a line of common descent be assumed for the prehistoric megalith builders? Finally he concludes that 'Diffusion of cultural institutions seldom involves the actual migration of hordes of people into a new area from a locus of cultural origin and *development... It is the* configuration of cultural traits rather than their sudden appearance that typifies the megalithic cultural *complex. The integrity of this* way of life lay in its assemblages of particular elements already present in different parts of South Asia rather than its possession of any unique elements".

Thus the origin of megalithism in South India need not necessarily be due to the movement of people or "colonization" as often claimed. Contrarily it is indeed possible that the neolithic people of South India, who are identified with the Dravidians by many scholars, in due course on account of the maritime contacts with the outside world i.e. most probably with the Near East, acquired the practice of the megalithic architecture which together with the other cultural elements such as Black-and-Red ware, iron, horse which were already known to the neolithic people, heralded the beginning of the megalithic culture in South India. Some similar features of the megalithic architecture of South India and the near East too vouches for this. This probably took place around 1000 BC. In this context, the early C 14 dates for the Karnataka megaliths is again significant. For, Sundara's (1969) excavations at Terdal in Bijapur district revealed that some of the *megaliths belonged to the neolithic*-chalcolithic phase which ended in this region around 1000 BC. This is also suggested by *Tekkalakota (Nagaraja Rao 1965) and* further confirmed by the evidence from Hallur in Dharwar district (Nagaraja Rao 1971). Tantalisingly *enough the archaeo*-logical as well as the anthropological record of the neolithic cum megalithic phases do confirm the above supposition.

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Thirteenth All India Conference of Dravidian Linguists at Thanjavur

(November 24-26, 1983)

Presidential Address

by

G.N. Reddy

The All India meet of Dravidian Linguists at Thanjavur has its own charm and importance. Thanjavur, as you all know, has been all through its history a great centre of literary and cultural activities of south India. Its contribution to fine arts, particularly the patronage it extended to Telugu and Marati Poets during the three centuries before the advent of the British was very significant and praiseworthy. The Saraswati Mahal Library which houses many rare and valuable manuscripts and books in different languages reflects the glory that Thanjavur was. With the starting of the Tamil University, the first of its kind in India, this place gets added importance for Dravidian Studies.

I have not chosen a definite theme for my Presidential address. However, I would like to dwell upon some needs, problems and perspectives related to teaching and research in Dravidian Linguistics.

1. There is a great need in strengthening the teaching of Dravidian Linguistics at the Post-Graduate level. It is true that Dravidian Philology is included in the syllabi of the Post-graduate courses in Tamil, Telugu, Kannada and Malayalam of our Universities, but the students are very much handicapped for want of a suitable text book on Dravidian linguistics. The great work of Caldwell can only serve as reference book in view of the significant advances accomplished in the identification and description of new languages and in research on Comparative Dravidian during the recent decades. Interest in the study and research in Dravidian languages could be created only when the Post-graduate students are provided with a standard text book on Dravidian linguistics. A suggestion could be that a standard text book incorporating the results of the latest researches be written and published in English first and its translation into South Indian languages be done subsequently. This I am sure will go a long way in improving the standards in the study of Dravidian linguistics at Post-graduate level.

2. In the recent years considerable number of important articles and learned papers relating to Dravidian linguistics

and culture have been published. As they are very much scattered in different journals, the promissing research scholars have no easy access to them. The collected papers of Burrow and of Emeneau published by Annamalai University are also out of print now. The papers of L.V. Ramaswami Iyer are not available in a book form. It is therefore highly desirable that important papers and articles published in various journals on Dravidian linguistics be collected and republished in a classified manner for the benefit of research students.

3. In the year 1979, the ISDL conceived a very useful project to prepare a bibliography of papers published on the history of South Indian languages in English and in the regional languages with the objective of reproducing or extracting of important papers. Early publication of the material collected under this project would also be very useful.

4. Authentic bibliographical information on Dravidian languages is still a lacuna. Publication of an annotated bibliography on Dravidian studies limited to such books and articles written in English will be a boon to research scholars and linguists to make further advances in the field.

5. A good number of theses and dissertations written in regional languages or in English submitted to our Universities for the award of research degrees on topics related to Dravidian studies, particularly on Dialects, Descriptive Grammars, Bilingualism etc., remain unpublished. It would be very useful if English abstracts of such theses are made available to the wider public.

6. It is true that linguistics as a modern science has come to us from the West, and it is also true that Modern linguistic science owes its genesis and the initial growth to the interaction of the West with the Indian Grammatical literature. The abundance of Grammatical tradition of Dravidian languages particularly of Tamil is unique for some features of non-Sanskritic tradition. To expound the Dravidian grammatical traditions, the DLA in its initial years had published two important works "The Foreign models in Tamil Grammar" by T.P. Meenakshisundaram and 'The History of Grammatical Theories in Malayalam' by K.N. Ezuthachan. Similar works on Kannada and Telugu if and when published would provide wider perspectives of Dravidian grammatical traditions. Terminology is also an important aspect of Dravidian grammatical literatures. Non-Sanskritic grammatical concepts of some theoretical significance could be investigated by a comparative study of the terminology of the traditional grammars of Tamil, Telugu, Kannada and Malayalam. Preparation and publication of a comparative Dictionary of Grammatical terms of Dravidian languages will be very helpful to understand and investigate the Dravidian Grammatical theories and traditions.

7. Toponymy or the Study of Place-Names is an attractive area for young researchers. Place-Names whether they belong to civilized communities or tribal areas are not arbitrary jumble of words or labels devoid of meaning. They are the products of a geographic, social, cultural, linguistic, historical and ethnological setting. India with its vast area and hoary past and with its multilingual and multi-ethnical characteristics provide immense potential for researches in toponymy. But a student interested in the study of Indian Place-Names has to encounter many hurdles particularly with regard to the source material. We do not have consolidated published lists of names of all villages, hamlets, habitations, and other names of places either statewise or district-wise or talukwise. To make a detailed study of the Place Names of a particular district or a region, one has to struggle hard in collecting the names from different sources like District gazetteers,

census reports, electoral rolls, topo-sheets, taluk survey maps and each one of them is distressingly incomplete besides being inconsistent or faulty in spelling the names. This indeed is a great lacuna besides an impediment for place name studies. The epigraphical and literary sources for place names are also scattered. Collection, compilation and publication of lists of place-names in each State and Union territory is an urgent need to make a thrust in the study of Indian Place-Names. Infact the study of Place-Names should interest not only linguists and quasi-linguists, but also historians, sociologists, anthropologists, cartographers and folklorists. Toponymy need not be only unidisciplinary or confined to a linguistic region. Besides the study of Dravidian Place-Names of different regions avenues of research can also be explored to establish cross cultural and translinguistic characteristics of Indian Place-Names.

8. Anthropologists divide indigenous population of India into two broad categories of castes and tribes. The constitution of India has listed 314 Scheduled Tribes of which 82 tribes with a total population of 81,40,658 speak Dravidian languages or dialects. They live as different ethnic groups scattered mainly in the Southern States cutting across the State boundaries and also in the northern States of Maharastra, Madhya Pradesh, Orissa and Bihar. The mother tongues of these tribes are not fully explored or studied. As such there is a vast scope for the study of Dravidian tribal dialects. A significant aspect of the Dravidian tribal dialects is that different ethnic groups belonging to one and the same tribes show dialect divergence. For example the Gond tribe consists of different ethnic groups like Koya, Dorla, Maria, Muria etc., and the dialect of each group appear different from the other. A study of tribal dialects of this type is likely to show the internal movement or migration of some tribal groups besides the linguistic peculiarities of their speech. The tribals in India are mostly bilingual because of their necessary contact with the neighbouring regional languages. The languages or dialects of the tribes living on the hills and mountain areas may possibly show less language contact than those of the tribes living in the plains. The study of language contact or interaction between the regional languages and the tribal languages offers a fertile area for research. The Tribal Welfare Department of our states and other agencies are primarily interested in the socio-economic development of the tribes and large amounts are budgetted and spent in this direction. Their interest in the tribal languages is not as much as it should be. They conveniently leave it to the linguists. In the study of a tribal language the concern of a linguist should not end with writing a descriptive grammar as a dissertation for a research degree. He should be committed to its protection, growth and development. Besides writing school books to impart literacy in the mother tongue of the tribal he should write or encourage the literate in the tribe to write and publish some literary writings and thus provide a literary identity for the tribe. A linguist who works on a tribal language should aim to be the Tolkappianar and Tiruvalluvar as well of that language. Irrespective of the number of its speakers or their primitive life every tribal language of India should be looked upon as a valuable treasure of our great heritage. No tribal language should be allowed to become 'an endangered species' of our linguistic wealth. Setting up a Tribal Education Board as already suggested by DLA is imperative for imparting education to the tribal communities through their mother tongue. They should be taught in their own language upto primary level using the script of the regional language. Census figures show that over fifty lakhs of tribals speaking the Dravidian dialects live in different

parts of the northern states of Maharstra, Gujarat, Orissa, West Bengal and Bihar. The Governments of these states should be prevailed upon to take special steps for preserving the language and culture of the Dravidian speaking tribes.

Some of the caste and tribe in India show interesting origins and links. The Dravidian word māla, denoting untouchables is a good example.

Tam.	mālar,	Children born of a Brahmin mother and a Sudra father; hunters, savages, outcastes.
Ka.	māla,	low, base, name of a barbarous tribe.
Tel.	māle	The Pariah caste of the Telugu Country, outcaste, vile, base, mean, ignoble.
	māladu	a pariah, outcaste, Son of a Sūdra and a sūta, name of a barbarous tribe. (DED. 3931).

It is obvious that māla is a non-sanskritic word and it has no Indo-European Etymology. It can be linked with Maler, a Dravidian ethnic group of Malto speaking people in Bihar (Mala, hill or mountain + a plural suffix meaning hill people).

Paharia is an other word denoting a hill tribe in Bihar and the Tamil word Paraiah may be related to this tribal name. Sanskritisation of Dravidian Caste, names, particularly of non-brahmin groups is also an interesting aspect for study. The common name for the barber Caste in Telugu is maṅgali, but they would like to be called nāyi brāhmana. Other examples of this kind in Telugu are:

Yadava for golla, the shephered Caste; Āryavaisya for Kōmati. The merchant class, Viswa Brāhmana for Kamsāli, goldsmiths. The Bōysā, a low caste people in Andhra claim decent from vālmiki, the author of Sanskrit Ramayana. The Aheriyas and Baheliyas both hunting tribes in the north Western region of India also claim decent from Vālmiki. The mālas or untouchables in Andhra region wish to be called Arundhatiyas, as they claim Arundhati, the consort of the sage Vasiṣṭha was of their caste. It may be of interest to know that the visit of a Brahmin to a harijan hamlet in South India is prohibited by custom and if any brahmin enters a harijan wāda he will be chased out and possibly beaten.

9. Grierson's Linguistic Survey of India owes its genesis to the scholars of Oriental Congress held in Vienna in the year 1886 who passed a 'resolution urging upon the Government of India "to undertake a deliberate systematic survey of the languages of India". The survey did not cover the then Madras Province and the princely States of Mysore and Hyderabad. The 20 volumes of the Linguistic Survey of India published during 1903-28 still remain a monumental work. Grierson himself humbly proclaimed that 'what has been done in it for India has been done for no other country in the world'. In his survey, Grierson was initially confronted with a total number of 231 languages and 774 dialects as reported from the survey area. After the process of elimination by close scrutiny and checking, the number of languages spoken came down to 177 and 544 dialects. In the case of some languages Grierson found it impossible to distinguish between language and dialect as between the two words mountain and hill. The 1921 census enumerated 188 languages for the whole of India and the total number of dialects being unknown. The language census of 1961 which attempted to provide a family-wise classified list of languages of the Indian Republic in relation to about 1652 mother tongues returned contains 193 languages excluding foreign languages. About 530 mother tongues were left unclassified because their affiliation could not be determined. The 1971 census is

surprisingly non-committal to the number to the number of languages in India though more than 3,000 mother-tongues are recorded. It also eliminated for publication all languages spoken by less than 10,000 speakers and arrived at a figure of 120 languages of which 14 are of the VIII schedule. From the point of view of language census, we have to say that the collection and presentation of language figures in the census reports of 1961, 1971 has been defective. The linguistic landscape of Independent India is also being subjected to certain stresses and strains. As such there is an urgent need for undertaking a comprehensive linguistic survey of India in a scientific and systematic manner using the latest techniques and tools. In fact, a blue print for the linguistic survey of India was submitted in the late fifties at the initiative of Professor S.M. Katre by the Vice-Chancellor's Conference headed by Dr. C.D. Deshmukh the then Chairman of the U.G.C. It was shelved by the Government because of other priorities of developmental plans. Now I think, a stage has come when the professional organisations like DLA, LSI and other academic bodies shoul impress upon the Government of India on the immediate need for launching the linguistic survey of India without further delay. Or, attempts could also be made to impress upon the State Governments and Union territories to undertake the linguistic Survey of their areas on their own.

10. On the origin of Dravidians and the affinity of Dravidian Languages with other languages, a few scholars in the recent years have shown some renewed interest. By advancing linguistic or archaeological evidence, Dravidian affinities with Finno-Ugric, Elamites, Sumerians, Basques, Negro-Africans are suggested. On One hand, relationship between Dravidian and Senagalese group of languages of West Africa is suggested and a newly created Department of Indo-African Studies at Dakar University of the Republic of Senegal is ceased with this problem. On the other hand, the roots of Japanese in Dravidian is being thought of by Susumu Shiba, a Japanese linguist. In between these two view points, interestingly Southworth has attempted to show the plausible case of a relationship between Dravidian and Indo-European and more specifically between English and Tamil, employing the same kind of lexical evidence by other scholars working on this problem. Attempts to establish genetic relationship of Dravidian with some languages beyond India is really an interesting pursuit. But the very many comparisons show that no scholar has provided tangible conclusive evidence and it still remains a debatable issue. As Bhat rightly pointed out "The establishment of a genetic relationship between two compared languages does not depend upon the amount of similarity existing between, but rather upon the possibility of providing systematic explanations for the various differences occurring between them". If this view point is adopted, a new direction will be added in our search for Dravidian affinities with other languages.

11. The computer age has now set in all over the world and computers are becoming a great necessity in every field of research including linguistics. Computer literacy is being included in the curriculum of the graduate courses in the U.S.A. The research scholars active in the field of linguistics may be advised to know the uses of computer as a processing tool in different types of problems like statistical analysis of linguistic data, alphabetization and classification of vocabulary according to different criteria, syntactic analysis, transformations, literary stylistic research, vocabulary study of individual authors, comparison of lexical and syntactic data of one language with that of another, preparation of multiple language dictionaries etc. It is needless to emphasize on the need, importance and utility of Computer based research by our researchers

for making rapid advances in the area of Indian linguistics. Epigraphic lore in South Indian languages also provides a vast scope for linguistic and cultural study. Chidanandamurthy's work on Kannada Inscriptions from the point of view of cultural and social history of Kannada people is an important contribution which can serve as a model for similar study in other Dravidian languages. 'A Concordance of the names in Chola inscriptions' by Nokoru Karashima is a fine illustrations for using computer in different types of analysis of Inscriptional material in our languages. Similar studies may be undertaken in other languages.

12. In the area of dialect and vocabulary studies, I would like to make a reference to the publication of a series of Telugu Dialect Dictionaries of native occupations based on filed survey by the Andhra Pradesh Sahitya Akademi. As on today five volumes related to agriculture, weaving, architecture and masonary, carpentary, pottery are published and two more, one on goldsmithy and the other on fisheries are under print. Field surveys on flora, fauna, folk medicine, blacksmithy, arts and crafts and other minor occupations are in progress. I am tempted to mention about these Telugu Dialect Dictionaries for two reasons: (i) It is a kind of work not attempted in any other Indian language, and (ii) The potential of vocabulary of different native occupations as recorded is really amazing. I feel that recording of vocabulary of all native occupations with its dialect variations in other South Indian languages is to be taken up immediately as much of it may be lost soon because of mechanisation and modernisation. It is also my observation that modern writers in our languages who are mostly based in urban areas do not know the potentialities of the native lexical wealth we have. We can also say their vocabulary power is mostly limited to standard speech. To retrieve and preserve the dialectisms and localisms in our languages, a suggestion could be that creative writers particularly in the realm of fiction be encouraged and rewarded in the use of regional and social dialects.

13. The progress of research in any field depends mainly on the funds made available for the scholars to take up short term or long term projects. To promote research in sciences and social sciences we have separate funding agencies like CSIR, ICSSR, ICHR etc. In one of the seminars organised by DLA a resolution was adopted to urge the Government of India to establish for linguistic research a separate funding agency to be named as Indian Council of Linguistic Science Research (ICLSR). It is high time we make serious efforts to prevail upon the Central Government for establishing such an organisation for linguistic research.

I hope that during the three days of this Conference some of the points I raised in my brief address will be given due consideration by the learned scholars and delegates assembled here.

On the Themes of Divine Immanence and Localization *

by

Rajam Ramamurti

Abstract

The following brief note discusses a problem which confronts anyone who wishes to accept that in ancient Tamil society, the sacred was immanent in certain places, objects, and persons. The problem is that of resolving a contradiction emerging from textual evidence portraying divinity as very dynamic. As a measure of resolving the contradiction, it is proposed to consider divinity as the result of a synthesis of various attributes, and more importantly, as dynamic.

Shulman, in his book on Tamil temple myths, has successfully demonstrated the importance of the concept of localization of divinity in the Tamil tradition.[1] Zvelebil, in his discussion of the dravidian notion of the sacred, argues for the "immence of the sacred" and observes that "the notion that a divinity is inherent in a particular place or object seems to belong to the very oldest stratum of Indo-Dravidian civilization."[2] The studies by Hart and Zvelebil provide us with the 'essence' of the ancient Tamil 'religion'.[3] We are told that (a) the ancient Tamils were aware of the sacred; (b) the sacred was made manifest through a power called 'ananku' which in turn, was immanent in certain places, objects, and person; (c) it was "an impersonal, anonymous, awe-inspiring supernatural power"[4]; and it was potentially dangerous.[5]

There is no doubt that the ancient Tamils were aware of the sacred, but it can be argued that the very notion of divinity was the result of a process of synthesis -- a synthesis of various attributes which the ancient Tamils found in various entities surrounding them. Also, as a synthesized notion, the "sacred" was not manifested through a single "power" called ananku. Ananku is one of the many classical Tamil terms which originally signified different attributes of various entities and which were eventually narrowed down semantically to refer to specific divinities. Textual evidence

*I wish to thank David Shulman for his comments on an earlier version of this note.

indicate that classical Tamil terms such as tiru, valli, cur, muruku, and mal which eventually came to refer to specific celestials were originally or contemporaneously used to signify certain attributes of entities.[6]

The question here is not with regard to the monopoly of 'ananku' as understood as manifesting the sacred. Rather, we are concerned with the 'immanence' theory of the sacred. This brief note discusses a problem which confronts anyone who wishes to accept the 'immanence' theory. The problem is that of resolving a contradiction emerging from textual evidence portraying divinity as 'mobile'.

It is very clear that regardless of its interpretation, ananku in ancient Tamil society, was not necessarily an inherent quality of entities; rather, it could be acquired.[7] In one instance, a classical Tamil hero says to his lover, "Wear these bright red leaves, so that your beautiful breasts acquire ananku" (Narr:9). If ananku were inherent in the woman's breasts, the expression "acquire ananku" would be pointless. By wearing the bright red leaves, it is expected that the woman's breasts will "acquire" ananku. In another instance, it is said that ananku was "made to join" a defined area 'manai' (Patt: 87-90). The context is that the fishermen do not go into the sea because it is a full moon night and their women have planted the horn of a shark in the porch thus causing the ananku to join the area prepared for their celebration. This example clearly indicates that ananku was not immanent in the porch before the horn was planted there. The process of planting the horn of a shark caused ananku to "join" the porch.

In similar ways, as similar, 'qualities', 'forces' or 'deities', however one might want to consider them, the 'teyvam' (deity) and 'katavul' (god) are also depicted as "joining" a location/site. In one instance, the teyvam was "caused to join" a tall entrance decorated with flowers (Patt:158-160). In another instance, the sturdy trunk of a margosa tree is referred to as the trunk which the teyvam has "joined" (Aka:309); and similarly, the trunk of another kind of tree is referred to as the "trunk which the katavul has joined" (Narr:303).

In somewhat different ways, other examples provide evidence for the mobility of the katavul. Thus, Akananuru 167 refers to a mansion "deserted" by the katavul, and Purananuru 52 mentions that as a result of the aftermath of a war between kings, katavul will "abandon" a column 'kantu'.[8] Another poem (Aka:307) refers to a column already "abandoned" by the katavul.

I infer from these instances that not only could ananku, teyvam or katavul "join" a location where they were not originally present, but they could also "leave" or "give up" a location.

Even the deity Murukan, referred to as muruku, is described as one who has "arrived" at the area of worship at the request of his priest Velan (Narr:34). Another instance indicates that muruku could be "invited/brought" to a site (Aka:138). A well developed stage of this kind of consecration of a site for the worship of Murukan is revealed in the Tirumurukarruppatai. It is explicitly stated in this poem that muruku (divinity) is first "guided" to the place of worship (Tiru:244) and then the divinity "stays" there (Tiru:249).

The Tirumurukarruppatai and the Paripatal also portray the deities Murukan and Mal (later Visnu) as very 'dynamic'. For example, according to the Tirumurukarruppatai, Murukan "stays" in Kunru (Tiru:77), but "rushes" through the sky

and "arrives" at Alaivay (Tiru:123-125); "stays" in Avinankuti with his lady (Valli) for "a few days" (Tiru:175-176), and "stays" wherever his worshippers want to perceive him to be (Tiru:249). In similar tones, in Paripatal 19, the poet eulogizes the mountain Parankunram and invokes Murukan: "O, the one who destroyed the yonder mountain! We expounded the elegance of your presence in the katampu tree on this mountain." (Pari.19:101-104).[9] Another poet admits that it is difficult to understand clearly Mal's "varavu" (Pari.1:28-30). The term varavu is beautifully ambiguous; it literally means "arrival"; semantically extended, it could mean 'history'! Only brahmins performing the Vedic sacrifice could "witness" Mal's "arrival" in the fire (Pari.2:68). One poet witnesses Mal's "arrival" and "withdrawal" in the wind (Pari.4:32).

If one wishes to accept that "the magic, supernatural, sacred power is simply there",[10] one wonders how to resolve the apparent contradiction emerging from the above textual evidence which portray divinity, be it ananku, teyvam, mal or muruku, as very 'mobile'.

The contradiction can be resolved by considering divinity as the result of a synthesis of various attributes, and more importantly, as dynamic. Then, if a location/site is filled with certain attributes due to a natural process or due to human will, it can be viewed either as merely 'having' those attributes or as being presided over by a divinity.[11] On the other hand due to the loss of certain attributes, a location may be considered either as having lost those attributes or as having been 'deserted' by a divinity. However, one might argue for a preexisting relationship between the sacred and the site. As regards the Tamil temple myths, Shulman says that "the god is essentially immovable -- even when he has been 'imported' into the shrine from somewhere else.... A common ritual of consecration causes the divine presence to reside in an image or a shrine; in the myths, however, this action merely reflects a preexisting relationship between the god and the site. A divine power is felt to be present naturally on the spot."[12] As far as the earliest Tamil poems are concerned, I cannot find evidence to support the thesis that there was a preexisting relationship between the sacred and the site. Nevertheless, I would like to exploit Shulman's term "localization" in relation to the highly localized nature of Tamil temple myths, and would like to suggest that the germ of the process of localization can be found in the earliest Tamil poems. Here, I use the term "localization" to represent two stages in its semantic development. In the first stage, divinity as an abstract force was "localized" by occupying concrete entities, and at a later stage it was slowly enveloped by various regional/local and ethnic attributes. This would explain why the Tamil temple myths are highly localized.

Speaking of ananku, Zvelebil says that "this power was so independent of the places, objects, and persons in which it was believed to inhere that it could precede or survive them".[13] Taking into consideration the dynamic quality of the divinity as evidenced in the earliest Tamil poems, I would like to formulate it differently: a site was so independent of the divinity -- ananku, teyvam, katavul, or muruku -- that it could precede or survive their presence.

Foot Notes

1. See Chapter II: The Phenomenon of Localization, in Shulman 1980. In this chapter, Shulman surveys a number of cosmological motifs attached to the Tamil shrines -- the temple tree, the stone image of the deity, and the sacred waters -- and stresses the absolute localization of these symbols. Also, he points out how the Tamil belief in a rooted, totally

localized godhead is in contrast to the Vedic concept of a movable ritual applying a set of standard symbols to any newly chosen site.

2. Zvelebil (1981), p. 14.

3. Hart (1976), (1975), and (1973).
Zvelebil (1981).

4. Zvelebil (1981), p. 23.

5. Hart (1976), p. 321.

6. I will discuss this in detail in a later work focusing on the Tamil concept of divinity in the pre-bhakti period.

7. Regarding the interpretation of ananku: My own study of the term ananku in all of its contexts in classical Tamil poems shows that (a) ananku as a verb basically means "to cause some kind of distress"; and (b) ananku as a noun can be understood as signifying a variety of attributes, for example, charming, stunning, sexually appealing, overwhelming, captivating, reverential, frightening, inexplainable, phenomenal, spectacular, gruesome, ...and strong. Any entity containing one of these qualities was an ananku, if one were to understand it from the point of view of the Tolkappiyam, which considers ananku as a source of fear. When one or more of these qualities were present in an entity, human or non-human, that entity was perceived as "having" something which the ancient Tamils called 'ananku'. The various effects that a perceiver of these qualities experienced -- a chill, awe, amazement, reverence, trance, restlessness, lovesickness,...-- were also called ananku. And lastly, by virtue of "having" the ananku quality or being able to cause ananku in their perceivers, certain entities were metonymically referred to as ananku.

8. Kantu, in ancient Tamil society, was a post/column set up not only in a brahminic ritual (Pur:52) but also to tie elephants to (pur:57).

9. Here, "yonder mountain" refers to the Kraunca mountain, while "this mountain" refers to Parankunram. In other words, the deity Murukan's presence is felt 'there' as well as 'here'.

10. Zvelebil (1981), p. 19.

11. See note 7 for interpreting 'ananku' as a bundle of attributes.

12. Shulman (1980), p. 48.

13. Zvelebil (1981), p. 23.

Abbreviations

Aka	:	Akananuru
Narr	:	Narrinai
Pari	:	Paripatal
Patt	:	Pattinappalai
Pura	:	Purananuru
Tiru	:	Tirumurukarruppatai

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The Cholas Re-Interpreted

by

N. Subramanian

History of the medieval Cholas (called 'imperial' by some) has received diverse attention from historians of different schools of thought. On the basis of the same known facts they have argued differently to arrive at various conclusions regarding the nature of the polity as a whole or of any of its significant aspects. Among them K.A. Nilakanta Sastri was a pioneering craftsman; and he wrote his well known work on the 'Colas'. It was a comprehensive work on a whole dynasty, which ruled for nearly three centuries and left behind enough epigraphic material, (and provoked contemporary neighbouring dynastics to do likewise) for the historian to go by and so he could only suggest or hint at probable solutions for historical problems relating to that dynasty. Problems, of course, have been many and he often-went beyond suggestion to make categorical statements on some of them, which by their very nature and the dubious character of the sources, could permit of alternative explanations. For quite some time scholars have thought that the last word had been said by K.A. Nilakanta Sastri on everything about the Cholas and no one need bother any longer about any of these problems. This pious-cum-lazy attitude towards a pioneering author kept many problems stagnating.

Recently, no doubt as fate usually has it, European, Japanese and American scholars started taking academic interest in the 'Chola' problems and they have also forged new investigative tools and techniques of explanation in dealing with them. Among them I shall mention only three:

1. Prof. Burton Stein, 2. Prof. Noboru Karashima 3. Prof. G.W. Spenser. Their task, as they saw it, was interpretational and they have not been Orthodox at all, and in fact have been occasionally pleasantly provocative.

Prof. Venkata Raghotam, who seems to have been academically inspired by some of these historians, has a very interesting paper on 'Rajendra Chola's raid on Sri Vijaya in A.D. 1025[1] and in it he says he studies 'the political and economic dimensions of the plunder dynamic in eleventh century Tamilnadu'.

Rajendra I (Chola) made three 'raids', apart from the usual ones on the Chalukya

and Pandyan territories. i.e. (1) On Ceylon, which nearly completed the conquest of the Island; (2) on the Bengal region of the gangetic Valley - the memory of which was sought to be perpetuated in the name of his new capital; and (3) the naval assault along the Sumatran Coast on the Sri Vijayans. G.W. Spenser dealt with No.1 in a recent paper.[2] 'The politics of plunder: the Cholas in eleventh Century Ceylon'. Prof. Raghotam's enquiry is similar to that of Prof. Spenser in that both are anxious to discover the real 'nature' of the Chola (Tamil) polity which could only be guessed at - the best guess being the Cleverest and not necessarily the correct one.

Here we confine our attention to Raghotam's view of the matter; and we shall herebelow summarise his views:

"Till now the Sri Vijaya raid has been interpreted as either an attempt at political domination of the Malayan peninsula or 'a punitive expedition to protect the interests of the Tamil merchants trading with China'. These views over - simplify the issue, and miss the real motive. The raid wasmerely symptomatic of the resource management system that evolved in the Tamil Country...... Rajdendra Chola's raid on Sri Vijaya can be seen as an attempt at mobilization and rationalization of power for the fulfilment of royal goals in order to enhance authority and prestige. In another way such predatory raids were economically advantageous as the Chola king hand command over a slender resource base".

This boils down to saying that the raid represented either a prestige campaign or a resource raising expedition. K.A.N. Sastri had almost said that it was for the first reason, namely the glory of 'digvijaya' that the naval adventure was undertaken. By merely calling plundering raid a 'digvijaya', its nature will not change; and Sastri's hero does reduce himself to the position of a plunderer, whatever the motive for his plunder. Sastri goes beyond this point and tries to suggest a punitive expedition i.e. to punish Sri Vijaya for having interfered with Chola trade with China or a pre emptive one to prevent its doing so; and cites Chola and Sri Vijaya contacts with China presumably for trade purposes. This would mean that commercial rivalry led to Chola - Sri Vijaya struggle. Notwithstanding the Tiruvalangadu Prasasti, did the cholas possess a navy strong enough to cross the Bay and beat the Sumatrans? Perhaps they did and then strength would be defined by the enemies. The epigraphic bombast possibly is the usual exaggeration of a successful Skirmish, but whatever it is, the enemy must have been weak enough to have been so neatly beaten.

In regard to Raghotam's suggestion that the economy of Chola Kingdom was dominantly agrarian and only peripherally commercial - industrial and so restoration or augmentation of over seas trade could not have been a motive, one should remember that our economy has always been dominantly agrarian, but still even in the Sangam age trade with the West did play a significant part in the mercantile activities of the Tamil traders and it increased at least urban wealth. The pirates on the Arabian Sea were destroyed by Sangam Chera rulers to keep the lines of trade with Egypt and the mediterranean open. But K.A.N. Sastri quickly withdraws the trade factor from his motive equation, and substitutes the 'desire for glory' which in plain English is 'tendency to aggression'. This is understandable; military aggressiveness against other states was built into the nature of the polity and needs no exhaustive psychological probe to be established.

But Raghotam does discover a reason for the aggressive raid: (that it was a raid

and that it brought in plunder are undeniable, whatever the other motives might be) it is supposed that the economic resources of the state were poor and so needed supplementing by plunder. It is stated that the weakness in the economy was caused by (1) its being endemically agrarian, and (2) the Brahmin and the temple being given tax free land. It is difficult to see why an agrarian society cannot be self-reliant or prosperous; and secondly no one knows what percentage of the total available cultivable land was given tax free to Brahmins and temples. It could not have been so large as to make the entire rest of the society poor. The frequent mention of Brahmadeyas and Devadanas should not mislead us into supposing that the lion's share of the available land was with the tax free priestly interests. The autonomy of the villages and the corporate bodies is, I am afraid, far too much exaggerated, in fact, to the point of reducing the king to the position of a helpless umpire in a disjointed polity.

The question of autonomy of Chola rural institutions needs fresh study. That much of autonomy as was compelled by the resourcelessness and the fragility of communications system, was allowed and nothing more. The villages did not collect and appropriate the local taxes; they were transmitted to the royal treasury; for the sake of convenience it was, in all probability, farmed out.

It is suggested that lack of local resources led to covetous aggressive raids on other's territories: time; but it may be added that such raids could well have been contemplated even by kings whose treasuries were full and overflowing. Greed is not the same as economic necessity; it is more universal and comprehensive. Did the Moghuls need the Dekkan to sustain their economy? If the suggestion that plundering raids were the result of gifts to Brahmins and the temples, it was well within the powers of the king or the concerned benefactor to stop the endowments and save the economy. But what is more strange is that after extensive plundering raids in Ceylon and in the Chalukkyan land, the great Chola kings returned to their capital to indulge in endowments to temples and gifts to Brahmins with greater zeal if possible.

It is interesting but not obligatory to construct imaginary polities in which kings are made to behave according to some modern formulae. The hint for a morally intelligible motive for aggression seems to be frustrating fertility. It is enough, one should suppose, to say that the raid on Sri Vijaya was the result of success of Chola arms on the banks of the ganges and the shores of Lanka, and the king's confidence in his military might. The success in this adventure was not fleeting. We know that Virarajendra claims to have defeated the Sri Vijayans again; possibly he quelled a revolt, and it is very properly held that Kulottunga I was the Chola representative in S.E. Asia before he returned to Vengi and the Chola country to succeed Adirajendra. The Cholas like any other political power, if given the opportunity and the resources, could commit aggression for its own sake and extract obeisance from distant tributaries and continue to do them as long as possible.

The attempt to seek a local economic cause for the raid or to try to paper it over by 'Dharmic' terms like 'digvijaya' are off the mark.

Foot Notes

1. The American Institute of Indian Studies Newsletter:- Vol. X No.1
2. Journal of Asian Studies. Vol. xxxv : No.3 (May 1976).

Comments on the "Factors of Emigration of Indian Labour in the 19th Century"

S.P. SAHAI

Dr. K. Nambi Arooran has made an elaborate study of the subject. It is very ticklish to probe into a subject like emigration because its canvas is very vast comprising of so many different aspects of Social, Cultural, Economic and Political character of the country during a specified time e.g. 19th Century. During that period India has undergone a state of turmoil due to the invasion of British, French etc. and the fading powers of Indian rulers.

The writer has very minutely described the difference in the use of the word immigration (or migration or emigration) and has tried to make the concept of the words quite clear. There may be so many aspects of these movements but the writer has concentrated on only one aspect. What made men emigrate from their ancesstral homes? The stimulus may have been mainly economic but really speaking it was a result of so many factors comprising of social, cultural, political and also the religious character of the country in those times, because the down-trodden and untouchables found an emancipation from this type of slavery which prevailed mostly in Tamil speaking area of the country.

The writer has also made a comprehensive study of other factors eg. 'Push' and 'Pull' factors. The revolt of 1857 and the spirit of adventure was the main cause of emigration in the case of high caste Hindus of Bihar and Eastern U.P. specially the Bhojpuri speaking districts. But mostly it was the agricultural labour of the country which regarded emigration as the only way out of the sufferings on account of poverty being faced in India during the 19th Century.

The writer's efforts deserve all praise for having encapsuled such an array of data and informations in such a small period of time. I am sure his investigation will provoke further research on the subject.

R. RAMAKUMAR

Imprints of Indian culture on alien lands have been made from days of yore when seafaring Indians left indelible marks on the modes and morals of life of the people of those lands in the form of

religions, rituals and beliefs and also in the shapes of temples and monuments. Contrary to this tradition the 19th century saw a large number of emigrants crossing the international waters to become labourers in several foreign colonies of the British empire and settling down in unfamiliar territories. Dr. Nambi Arooran has given a detailed and vivid picture of the harsh conditions at home which drove the poor Indian labourers to take the extreme steps. He has identified and enumerated the several manifest 'Push' and 'Pull' factors of this migration. Although there is no need to make a conscious attempt to interlink these conditions, yet a detailed description of the different processes of recruitment and the deceiving role played by the crafty recruiting agents would have helped us to understand even better the exploitation of the ignorance of the migrants, the irreversibility of the first and very often, impulsive decisions by the Labourer to escape from the mire of poverty and life-long bondage in which he was caught and his inability to break away from the stranglehold of his new employers, and thereby, the involuntary nature of the Indian emigration during the 19th Century.

Other relatively unexplored aspects of Indian migration that need answers are (i) how, despite the poor conditions of life at the place of destination and absence of communication channels between places of origin and destination, did the emigration virtually become streams? (ii) what were the relative sizes, directions and annual variations of the different streams that originated from different parts of India? (iii) what role has distance played in deciding the volume of migration? (iv) why was the relative efficiency of the streams so low? (v) what was the impact migration had on the communities at home and abroad and how did they react? The answers to these questions would indicate the differential 'Push' and 'Pull' factors and explain the socio-economic-psychological set-up of the times.

It has been said in the paper that the Government of the period effected legislations at times, to restrict the outflow in view of the poor conditions at the places of destination. It has to be noted that the Government of the time was controlled by men who should have been interested in the emigration as it would have only helped their own men who owned the estates of their colonies. Yet, if they have brought in restrictive legislation, albeit few, it speaks of the possibilities of public resentment in India. A pertinent follow up in a subsequent paper could be an assessment of the tone and temper of Indian public opinion on Indian labour migration through an analysis of literature and other related documents.

Also, as the countries of destination of the migrants were themselves economically backward there is the possibility that the migrants were resisted by the local labour. Whether such unfavourable conditions existed is not evident from this lecture. Further research is called for in this area.

In the same way, a natural question that one would ask - realising the underdeveloped state and the absence of any large scale attempt to exploit the natural wealth of the country during the corresponding period - is regarding the social, economic and other factors that have prevented the utilization of the surplus labour that was allowed to migrate.

The history of Indian migrants during the 19th Century is mainly the story of the Tamil migrants. It is they who have gone out in large numbers and to many places and continued to do so into the 20th Century. The other streams have trickled off by the middle of the 19th

Century itself. The example of migration to Mauritius cannot enable us to understand the consequences and complexities that appear in the form of repatriation and citizenship rights that we face today.

If this study of the factors of emigration had begun with an assessment of the volume and direction of migration over the years it would have been possible to appreciate better the relative importance of the 'Push' and 'Pull' factors mentioned.

The lecture shows how vast and deep is the topic that the learned Professor has touched upon. It gives wide scope to study the conditions at home and abroad during the period of migration. The volume of migration and the characteristics of the migrants, the success or failure story of the migration as the future evaluations show, the consequences of migration on the home country and the impact at destination, acculturisation of the migrants at the country of domicle, etc; are topics that, I hope, will receive the attention of the chair for Tamil Emigration Studies. Documents such as old muster rolls, account books and private diaries of the estates, direct interview with third generation migrants regarding the family genealogy and old government records could help to make a historical demographic analysis worthwhile.

T.B. SIDDALINGAIAH

This paper has been prepared quite meticulously. In two parts, definition of the terms and the various factors leading to emigration of Indian labour in the 19th Century have been fully and amply explained. Also the Acts of Emigration 1871 and 1908 have been dealt with.

'Pull and Push' factors form the basis of emigration. These have been sufficiently categorised and explained. Distribution of emigrants, community wise and statewise are also given. The paper concludes with: 'A spirit of adventure was another factor, particularly, when emigration gained momentum'.

There had been occasions when there were lulls in the flow of emigrants. Disillusionment and frustration, on the part of the migrants and non-recognition and ill-treatment meted out to them from the 'receiving nations' etc. have been the causes for such drops in the flow. Political parties like Congress and poets like Bharati have spoken about the miseries of the Indian emigrants. These could have been mentioned.

People emigrated for 'food and freedom'. Here the term freedom includes 'freedom of worhsip'. Pilgrim Fathers crossed the Atlantic Ocean by 'Mayflower' seeking freedom of worship in the New World. For political reasons also people emigrated.

Emigration is not peculiar to one particular period and it continues in India even today. It is not a phenomenon just confined to the 18th or 19th Century. People emigrate in the post-independence period in search of job or in search of comfortable living. We also term it as 'brain drain'

Emigration may be that of an individual for personal gains or may be of a group for collective gain.

What is the present status of the Tamils who migrated to different parts of the country a century ago? How did they comfortably settle down? What

do the foreign Tamils think of our country? How do they think of themselves? Would they like to call themselves as 'Tamils'? How would they like to be called? These attitudes may be studied in the future.

Among the emigrated Tamils what did the previous generation think of themselves, their language and culture. How does the present generation think and how would the future generation think? Would they like to come back or settle in the emigrated countries? Do the present day foreign Tamils feel proud of saying that their forefathers hailed from Tamilnadu? Will they ask for help to retain a knowledge of Tamil in future? These factors also may be probed.

This is a very fine study. This may be taken as an Introduction to a fuller study of the problems of the emigrants. I expect from the author an authoritative volume on this. I congratulate Dr. Nambi Arooran for this meticulous study.

S. MANICKAM

As rightly pointed out in the Vice-Chancellor's letter, the creation of a Chair in the University is an event of historical significance. Hence, the idea of Professors delivering inaugural lectures on the assumption of their respective Chair is highly commendable. It is a healthy practice to be emulated in every University. In that respect Dr. K. Nambi Arooran has made a good beginning. As a Professor of Tamil Emigration Studies, he has taken pains to collect as much data as he could for the preparation of his lecture on: "Factors of Emigration of Indian Labour in the 19th Century". As an assiduous researcher, he has pooled information from diverse sources and neatly presented it, making his paper quite informative. As a paper on "Emigration of Indian Labour in the 19th Century", it reads well.

There are two ways, at least, by which culture can disseminate itself. There is the peaceful penetration through emigration and a violent imposition by the victor over the vanquished. Rajendra Cholan stands for the violent imposition and the emigrants stand for peaceful penetration of Tamil culture or Indian culture whatever may be. This aspect could have received little more attention of the Professor in his lecture.

To what extent these emigrants or the foreign Tamils, through a passage of hundreds of years, still strive to preserve our Indian culture, our tradition, our language, art and architecture? What is the attitude of the present Tamils abroad towards Tamil culture? How do they look upon the home of their ancestors or forefathers? Do they still look upon with nostalgic feelings or with repulsion? The study of emigration is important because it is a social movement. Injustice was meted out to a section or sizeable section of the population and so they looked upon the distant land as a haven.

The foreign rule in India definitely led to in certain respects an overall backwardness. But at the same time it is also a blessing in disguise. It is the Anglo-French colonisation which was indirectly responsible for the people to move about to go into other directions. But for the colonies I don't think an opportunity could have been given to these Tamils who are now called foreign Tamils. There was a place to escape. So colonisation should also be looked upon this way and not always as an adverse phenomenon.

P.R.S. MANI

At the outset I must state that it is an admirable lecture clear in its conception, precise in its nature, analytical in its framework and simple and easily understood in its composition. I must particularly

emphasize the last one which is "simple and easily understood in its composition". In my student days professors were respected for their long-winded language and for making concepts even more abstruse to confound the student. But luckily you all have a Professor here who can put it to you in a very simple language. I have therefore to congratulate Mr. Nambi Arooran for keeping with the modern trend to simplify and make comprehension easier and swifter.

It is useful to have clear definitions as he had done. In my experience the words emigration and immigration have often been used in each others place by some officials causing confusion even in negotiations. I have racked my brains repeatedly to enlarge the "Push" and "Pull" factors causing emigration of Indian labour in the 19th Century as enumerated by Professor K. Nambi Arooran. But I have not been able to add any more. It has been my impression hitherto that it was poverty that drove mostly our emigrants abroad. But the factor of man's inhumanity to man, which the Professor has included could have been given in greater detail.

I now avail the opportunity of mentioning a few details which strictly do not fall within the scope of the Professor's lecture, but do actually follow from it. In the light of my contacts with those Indian emigrants extending from Philipines, China, Indonesia and Malaysia at one end, from South Africa, Mauritius and Re-union at the other and with those emigrants to Sri Lanka, Nepal and Burma near our home, I find that the base of emigration extending over a period of 75 years, had completely transformed these people into confident, self-reliant and successful communities. We must not imagine that they were not able to support themselves. We must not imagine that they are in the same status as when they were driven out of this country because of poverty. But they are very self-confident, respectable, leaders of their communities and doing well for their countries of adoption.

Apart from moral support and occasional visits of Indian officials and personalities they had to greatly depend upon themselves. They had to leave the mother-country because of poverty and penury and largely they have now acquired personality and position in the lands of adoption. We must be proud of them and some times I find they have enriched their lives more than our people in India. They go about this country and see how backward we are. Not all our emigrants are backward. Most of them are well to do and they are very satisfied, contented communities. But they have not given up their traditions from the mother-country and continued to be proud of their heritage. They do not depend upon us for their evolution but we must respond to some of their cultural needs.

The Indian Government has no doubt established Mahatma Gandhi centres in some of these countries. But these seem to cater only to the elite amongst them and it is to be hoped that the broad masses of the Indian origin populations could be attracted to such centres. Apart from more intensive and extensive cultural contacts with the people of Indian origin abroad there is need for moulding public opinion in India and bringing it to bear upon the continuing problems that emigrants abroad face. As you all know the problem of the stateless people in Sri Lanka, still remains unresolved though the half measures adopted so far have given some relief. The Re-union island in the Indian Ocean has an old history of ill-treatment of people of Indian emigrants and actually our people, rather our kinsmen, they are though in small numbers since the Indian Government stopped immigration to that island in 1882, continue to face serious

difficulties. They have no political rights and they are hard pressed and they are not allowed even to agitate. I do not have to mention the oppression of the Indian communities in South Africa, a sizeable number of them are Tamils.

I shall now emphasize the relevancy of these observations. This is an occasion on which the university is organizing the Chair of Tamil Emigration studies. Of the 6.5 million Indians overseas, really 4.5 million are citizens of the respective countries of adoption. But bulk of this population abroad originate from Tamil-nadu and are mostly in South and South East Asia apart from Mauritius and South Africa. My contacts with them go back to February 1942 when on the fall of Singa-pore to the Japanese, I was asked to organize and broadcast a programme in Tamil and English to them from All India Radio in Delhi, so that contacts between them and kinsmen in India could be maintained and I was much touched then by the sentimental ties as was revealed in the exchange of messages, over ALL INDIA RADIO and Radio Singapore, which the Japanese then permitted.

In recent years I have participated in seminars in New Delhi on Indians Overseas. It is noticed that the emphasize therein appear to revolve round the recommenda-tions to the Government of India and on economic relations with more affluent sections of the overseas Indians mostly because we get large foreign exchange remittances from them. There is also a talk of establishing a foundation and a clearing house for contacts with the Indians Overseas and their problems.

Some years ago the South and South East Asia department of the University of Madras held an elaborate and purposeful seminar which pin pointed the problems of Overseas Indians in South and South East Asia and all aspects of political, economic and cultural relations with all the countries of that region. It included such projections as are possible for the future. Recommendations were made as usual to the official agencies but it is not clear to me whether the matter has been pursued further. In any case it is not for a University as also not feasible for it to continuously engage itself in such problems. The scope for Governmental action in such matters is limited. Since Governments have to function in the context of the practice of International relations and often their parameters for international action are limited by the foreign policy they have to pursue.

In the circumstances I would appeal to the Tamil University and the Depart-ment of Foreign Studies to take a lead in the establishment of the foundation for overseas Indians with the avowed object of creating public opinion in India, to their problems, to assist them in cultural and educational matters, and to act as a clearing house providing links and contacts with Indian institutions and personalities. It has to be stressed that their struggle and evolution in their countries of adoption will be essentially a matter for them to determine and in my experience I have found them even more mature politically than our own people at home. Obviously if such a foundation is to function effi-ciently and fulfill its tasks it has to be located in Tamilnadu and not at New Delhi.

The Government of India has already organised rather revived a cell to address itself to the problems of Indians Overseas and the foundation for Indians Overseas in New Delhi could lean too much on official patronage, if not embarassing to Government, besides hampering it in its own efforts. But the Government of Tamilnadu which has a responsibility and had been historically active in the matter should strengthen its own view point by helping the founding of such a foundation

in Madras for which I assure you that sufficient financial assistance and support will be forthcoming from Indians overseas as well as leading Indian citizens. Of course such a foundation will not confine itself to the Indians Overseas of Tamil descent only.

K. GNANASOORIYAN

Impact of caste and social oppression and other factors have been common throughout India for the emigration of its citizens. Tamil Nadu had been forward as far as education was concerned and it may be due to the impact of the work of the Christian missionaries. It had an edge over the rest of India because of the coming of missionaries much earlier. How come, I am puzzled to ask, the feeding of the emigration process to the entire Southeast Asian region had been done by the Madras Presidency alone?

Emigration is a continuing process. Political oppression seems to be an important factor even today for the emigration of Tamils from countries like Sri Lanka. Reemigration also takes place. For example 500,000 Tamils of Indian origin are returning back on Sirimavo Shastri agreement. Similarly 40,000 Tamils had returned from Burma. The Department of Tamil Emigration Studies may take up in future for detailed investigation the phenomenon of repatriation.

Reply to the Comments

by

K. NAMBI AROORAN

Reacting to the suggestions made by the commentators as to how the Tamil University could help the Tamils abroad in maintaining cultural links, the Professor pointed out the limitations of the State Government in dealing with citizens of other nations. The Central Government is also bound by conventions and codes of behaviour in international relations. However, within the permissible limits the university will do its best to help the Tamils abroad in maintaining their cultural identity. In this regard the Tamil University could function as a clearing house collecting and disseminating information on the Tamils abroad.

Dr. Manickam wanted to know the future lines of research in the Department. In reply, the Professor said that the Department is first of its kind in our State to concentrate on emigration studies. The Professor is working on a monograph on the Tamils in South Africa. In the following years other areas also will be taken up for study. The Associate Professor, Dr. S. Rajaram, who has specialised in teaching Tamil to non-Tamils, will concentrate on the preparation of reading material as well as audio-visual aids such as slides, cassettes and video-cassettes. The Tamil University will also set up a language laboratory and a closed-circuit television system for teaching Tamil on the campus.

The Professor explained that the department has plans to take up sociological studies of Tamils living abroad. For this an Associate Professor of Sociology would be appointed soon who would take up for investigation problems of cultural diffusion, acculturation, cross-cultures and cultural pluralism. At a later date specific projects will also be assigned to research fellows.

Dr. Manickam suggested that the Department should undertake a study of the attitudes of the Tamils abroad towards present day Tamil culture. This could be

done when field work is undertaken by visiting various countries where Tamils live in large numbers. The Professor agreed with the contention of Dr. Manickam that emigration served as a safety-valve for the oppressed and downtrodden in our country.

Mr. Gnanasooriyan's suggestion that the problems of repatriation of Tamils should also be investigated, was welcomed by the Professor.

A Report of the XIII All India Conference of Dravidian Linguists Held on 24-11-83 — 26-11-83 at Thanjavur under the Auspices of the Dravidian Linguistics Association and The Tamil University

Thanjavur witnessed a happy mingling of the linguists working in the area of Dravidian Linguistics to discuss problems related to theory and practice. The XIII All India Conference of Dravidian Linguists, under the joint auspices of the Dravidian Linguistics Association and the Tamil University was inaugurated by His Excellency Thiru P. Ramachandiran, Governor of Kerala on 24.11.'83 at 10.00 AM at Sangeetha Mahal. His Excellency Thiru P. Ramachandiran in his inaugural address stressed the positive aspect of the multiplicity of languages of our nation as a bridge to unify the people and not as a means to divide the people. This conference will pave the way for the integration of the people. A portrait of the late Prof. T.P. Meenakshisundaram, one of the productive senior linguists of our country and who was responsible for establishing and shaping the Centre of Advanced Study in Linguistics at Annamalai University, was unveiled by His Excellency Thiru P. Ramachandiran. The members of the family of Prof. T.P. Meenakshisundaram were garlanded by the Dravidian Linguistics Association. Prof. G.N. Reddy, President of the Dravidian Linguistics Association, pointed out the appropriateness of Thanjavur for the meet of the Dravidian linguists. It was a great centre of literary and cultural activities of South India. Its contribution to fine arts is significant and the Saraswati Mahal Library housing many rare and valuable manuscripts and books in different languages reflects the glory of Thanjavur. He suggested the necessity of undertaking projects to study the non-Sanskritic elements in the traditional Dravidian grammars, to prepare an authentic bibliographical information on Dravidian languages, to undertake the study of Place-Names and to survey the dialects of Dravidian languages. Welcoming the scholars and other distinguished guests of the conference Prof. V.I. Subramoniam, Vice-Chancellor of the Tamil University, said that next to Madras, it is Thanjavur that has large concentration of non-Tamil speakers. He outlined the historical background for the settlement of non-Tamil speakers in Thanjavur delta. Thanjavur, he pointed out, stands as a symbol to signify the tolerance and coexisting nature of Tamil people with speakers of other minority languages. He paid rich tributes to His Excellency Thiru P. Ramachandiran for his generosity in extending help for the development of the Dravidian Linguistics Association. Mr. Habeeb Muhammed, Vice-Chancellor of the Kerala University, Trivandrum, in his address to felicitate

the delegates, discussed the various functions of language. The inaugural function ended with vote of thanks proposed by the Organizing Secretary Dr. K. Rangan, of the Tamil University.

In all 63 delegates out of 74 registrants participated in the conference. The delegates came from Tamilnadu, Kerala, Andhra Pradesh, Karnataka, Maharastra, Punjab, Uttar Pradesh and the Union territory of Pondicherry. Of the 57 papers received, including the Special lectures and T.P. Meenakshisundaram endowment lecturers, 49 were presented in the three days of the conference. There were nine groups which sat and had fruitful discussions in all these three days over different aspects of Dravidian linguistics. The papers presented covered a wide range of topics like Syntax, Semantics, Phonology, Historical Linguistics, Sociolinguistics, Language Contact, Bilingualism, Place-Name Studies, Language Teaching, Stylistics, Lexicography, Traditional Grammars, etc.

The language wise break-up of the papers excluding theoretical ones presented in three days conference may be given as follows: Bengali (1), Kannada (1), Kashmiri (1), Kuruma (1), Malayalam (4), Manda (1), Mullukurumba (1), Tamil (19), Telugu (4), Tulu (2), Hindi and Tamil (1), Tamil and Russian (1) and Tamil and English (1). The topic wise break-up of the papers, including special lectures and endowment lectures is as follows: Phonology (4), Syntax and Semantics (10) Historical Linguistics (4), Dialectology (3), Socio-linguistics (8), Child Language Studies(2), Language Teaching (3), Contrastive Studies (2), Lexicography (3), Translation (2), Ancient Grammatical Theories (2), Tribal Studies (3), Place-Name Studies (6), Inscriptional Studies (1) and Literary Criticism (4).

On 24.11.'83, Mr. Iravatham Mahadevan, Madras, delivered a special lecture on New Evidences for the Early Tamil-Brahmi Inscriptions at Sangeetha Mahal at 11.15 AM. under the chairmanship of Prof. Y. Subbarayalu, Department of Epigraphy, Tamil University.

There were three groups, meeting in different rooms in the campus of the Tamil University on 24th afternoon. The first group under the chairmanship of Dr. V. Prakasam, Punjabi University, Patiala, met in the Seminar Hall to discuss the papers on Syntax and Semantics. 5 papers were presented in the session. 3 were on Tamil and one on Malayalam. One was dealing with the problem of Interpretation and Understanding. The second group met at Sangeetha Mahal and it was chaired by Prof. M. Shanmugam Pillai, International School of Dravidian Linguistics at Pondicherry. 4 papers were presented in the group and the issues related to the areas of Language Planning, Language Attitude, Language Contact and Link Language were presented and discussed in detail by the participants. The third group concentrated on the area of Place-Name Studies and it was presided over by Dr. J. Neethivanan, Madurai Kamaraj University, Madurai. Papers studying the place names in Andhra Pradesh, Karnataka and Tamilnadu were presented.

A cultural programme was arranged on 24th evening for the delegates of the Conference at Sangeetha Mahal. Chakkadevi Folk Art Troupe of Tinneveli district entertained the delegates with the folk dances such as tevarattam and oyilkummi. It was enjoyed and appreciated by the delegates. As a token of appreciation, Prof. V.I. Subramoniam, Vice-Chancellor, Tamil University presented Thanjavur plates to the artists.

On 25th morning, the first group chaired by Prof. S. Velayudhan, Regional Institute of English, Bangalore discussed the problems concerned with Phonology, and Historical Linguistics. 6 papers out of

which one was on Palatographic study of Telugu retroflex consonants, three on the Phonological Study of Bengali, Tamil and Telugu and two on Historical Linguistics were presented in the session. The papers presented generated interest among the participants and the session witnessed a lively discussion. In the second group, 8 papers were presented under the topics of Sociolinguistics, Language Contact and Tribal Languages. This session was chaired by Prof. M.S. Thirumalai, Central Institute of Indian Language, Mysore. The third group devoted to problems of Language Teaching, Translation and Stylistics, met at Sangeetha Mahal under the chairmanship of Dr. B.K. Nayar. 3 papers were presented in the session. Since the constraint on time was relaxed for presentation and discussion, the participants expressed their views freely and put forward convincing arguments.

The evening sitting was also divided into three groups presided over by Dr. P. Somasekaran Nair, University of Kerala, Trivandrum, Dr. R. Kothandaraman, International School of Dravidian Linguistics at Trivandrum and Prof. P. Thirugnanasambhandam, Madras. The group that met at Sangeetha Mahal discussed the issues related to the fields of Lexicography and Tribal Language Studies. 3 papers were presented in the session. The study of Syntax and Semantics was the theme of the second group meeting in the Seminar Hall. 4 papers were presented and the group witnessed interesting discussion in the areas of Syntax and Semantics. 3 papers in the areas of Historical Linguistics and Ancient Linguistic Theories were presented in the third group that met in the Lecture Hall.

A tour programme was arranged for the delegates of the conference to visit Thiruvaiyaru, a culturally important place 13 KMs away from Thanjavur. The delegates visited the temple and the Samadhi of Thiagaraja Swamigal, a renowned composer in Karnatic music.

As part of the conference proceedings, this year the Dravidian Linguistics Association organised an Endowment Lecture Series in the name of late Prof. T.P. Meenakshisundaram. The Endowment Lectures were arranged on 26.11.'83 at Sangeetha Mahal at 10.00 AM. Five eminent scholars in the fields of Literary Criticism and Linguistics accepted the invitation and delivered the lectures under the chairmanship of Prof. V.Sp. Manickam, Former Vice-Chancellor of Madurai Kamaraj University, Madurai and Tolkappiyam Fellow of the Tamil University. Prof. P. Thirugnanasambhandam, Madras, delivered his talk on Literary Criticism. This was followed by the talk of Prof. K. Chellappan, Bharathidasan University, Trichy on Criticism: A Structuralist Perspective. In the field of linguistics, Prof. S. Velayudhan, Regional Institute of English, Bangalore presented his talk on From Structures to Communications: Rethinking on Current ELT Methodology in India and Prof. M.S. Thirumalai, Central Institute of Indian Languages, Mysore on Child Language studies. The lecture sent by Prof. K. Ayyappa Panikkar, Trivandrum on New Directions in Literary Criticism was presented by Prof. S. Velayudhan in his absence. A special lecture on Tamil University Machine Translation system was arranged on 26.11.'83 at Sangeetha Mahal at 2.00 PM. On behalf of the ABC group consisting of Mr. K.C. Chellamutthu, Mr. K. Murugesan and Dr. K. Rangan of the Tamil University, Mr. K.C. Chellamutthu explained the methods by the ABC group to translate the Russian texts into Tamil using the computer. Mr. K. Murugesan joined Mr. K.C. Chellamutthu to explain some of the problems faced by the group while working on machine translation. This session was chaired by Prof. M.S. Thirumalai.

At 3.00 PM. the valedictory function took place at Sangeetha Mahal. It was presided over by Prof. V.I. Subramoniam, Vice-Chancellor of the Tamil University and Prof. K. Chellappan of the Bharati-

dasan University delivered the valedictory address. Dr. B. Gopinathan Nair, Secretary of the Dravidian Linguistics Association welcomed the gathering and it was followed by the presentation of the conference report by the Organising Secretary Dr. K. Rangan. Prof. Hermann Berger, Heidelberg and Dr. (Mrs.) Nagamma Reddy, Osmania University, Hyderabad gave their impressions about the conference. The conference ended with the vote of thanks proposed by Dr. S. Arokianathan of the Tamil University.

It was generally felt that since the number of participants was limited, the delegates had enough time for presenting and discussing the papers seriously. There was free and frank exchange of views and thoughts. The attempt to understand the fellow linguists was the dominant sentiment of the conference.

National Seminar on Contemporary Teaching Methods and Technologies in Higher Education - A Review

The 'National Seminar on Contemporary Teaching Methods and Technologies in Higher Education' was organised under the joint auspices of the University of Madras and the Association of Indian Universities as part of the former's Post Centenary Silver Jubilee Celebrations. The seminar was held at Madras from 21st to 23rd September, 1983. There were four sessions in total and about 20 participants actively took part in the deliberations. In addition to the participants, the seminar was largely attended by Vice-Chancellors of various Indian Universities and a few members of the Association of Indian Universities (AIU).

The Seminar was inaugurated by Prof. R.C. Paul Vice-Chancellor of Punjab University and the president of AIU. In his inaugural address Prof. Paul observed that university teaching today is not advanced with contemporary knowledge. He said that outmoded teaching methods, poor curriculum planning and badly organised instructional materials have predominent role to play in the scenario of higher education today.

Prof. M. Santappa, Vice-Chancellor of Madras University presided over the inaugural function. In his presidential address Prof. Santappa stated that university education is not the extension of school education. He said that students use different cognitive strategies for interaction. If instructional methods and materials do not take those strategies into consideration the teaching will be a failure. In addition, methods should be invented not only for teaching but also for developing the 'habit of inventing' among students. Participative method which includes participation in the seminars, conferences, workshops, field trips etc., should be developed as part of teaching to achieve better understanding of modern education. The existing teaching methods have to be technologised and the low cost technology should be made available to attain the educational goal, he added. Prof. T.E. Shanmugam, Emeritus Professor of Psychology welcomed the gathering.

Under Theme Note Addresses, the Indian scene was presented by Dr. Jagdish Narain, Secretary, AIU. He observed that higher education in India is somewhat complex and the teacher will continue to be the pillar in the system of Indian education. With regard to teaching method, he said that the lecture method is most dominant in higher education, but teachers due to lack of awareness, training and

sometimes motivation are unable to combine it with suitably chosen aids. As a result of this, the Indian scene presents a more or less stagnant state of affairs with respect to innovation of teaching methods and aids. The reasons are, Dr. Jagdish Narain indicated i) considerable lack of motivation on the part of teachers to use modern teaching methods ii) lack of proper training and iii) lack of material resources. He, therefore, urged each university to think in terms of a teacher training cell for induction training to teachers besides conducting short term courses, workshops and seminars as part of in-service programmes.

Prof. R.G. Takwale, Vice-Chancellor of Poona University was skeptical about the use of lecture method in higher education. In his talk, he mentioned that students in universities can do well even without lecturing. The art of self-learning has been acquired now by every student. The open university and distant education have proved this state of art, he added. Prof. Takwale, then emphasized the use of technology in higher education and called upon the educational technologists to make use of their expertise for producing better software materials.

Prof. V. Natarajan, Project Director, AIU proposed a vote of thanks.

The first paper reading session was on "Teaching Methods in Higher Education". Prof. S.N. Mehrotra, Vice-Chancellor of Jodhpur University took the chair and conducted the deliberations. The theme paper entitled 'Conventional Teaching methods and Technologies in Higher Education' was presented by Prof. V. Natarajan. He has rightly pointed out that the educational functions of universities are more than teaching; nevertheless, they have the task of teaching large numbers of young people at critical professional and technological level. This is a great and a growing responsibility and there is evidence that staff are not sufficiently trained for it. Systematic investigations of their teaching in the last few years suggest grounds for disquiet, he said.

Prof. Natarajan has prepared a questionnaire in order to assess situation with regard to the use of conventional methods of teaching, Lecture, Lesson, Tutorial, Discussion, Project, Assignments, Seminar, Case study etc., existing in different universities. He said that the copies of the questionnaire were sent to 19 Indian universities. Of them 6 universities responded with questionnaires duly filled in. His analysis of information was found to be very interesting and useful to the teachers and teacher educators. The following are a few conclusions worth mentioning.

i) Lecture method is the most 'extensively' used conventional method of teaching for all teachers irrespective of the subject they teach. However, one thing outstanding in the responses of teachers of all disciplines is that lecture method forms only a part and not the whole of teaching.

ii) Lesson method, structured material to ensure student participation is another conventional method extensively used by teachers of all disciplines to promote efficient learning. But the extent to which lesson method is used by social sciences teachers is far less than the extent to which teachers from Science, Arts, Humanities and Language teachers.

iii) Teachers of Science, Arts and Humanities and Languages use Tutorial method for closed as well as open ended problems, simple to complex tasks or abilities, for routine problem solving while Arts and Humanities teachers use it also for remedial learning.

iv) Project method forms a major part

of teaching by Social sciences, Sciences, Arts and Humanities and Language teachers.

v) Seminars are used by more than 50% of teachers of all disciplines for development of application, personal traits, interests, communication expression and social skills.

vi) Workshop method is only used by a negligible number of teachers.

vii) Audio-visual methods are used by a large number of science and Arts and Humanities teachers.

Prof. Natarajan concluded his paper with the remark that particular methods will suit particular people, and the teacher's task is to find techniques that serve the needs of his students and the requirements of the subject matter.

The recommendations of the various seminars such as Regional Conference on Science Education, Panel on Science subjects, Working Group on Mass communication and Educational Technology etc., organised by the University Grants Commission were presented by Mr. I.C. Menon, Joint Secretary, UGC. He said that four Regional Conferences on Science Education were organised by UGC at Chandigarh, Madurai, Ranchi and Poona during January and February, 1983. There were indepth discussions on problems on science education and recommendations for future action were made. One of the important recommendations was to set up of Science Education Cells in the universities and Science Education Centres in different regions. The cell will act as a catalytic agent, animator for changes in science education. The science education centres will be set up on a regional basis and those centres along with the cells in individual universities will together provide the necessary network for co-ordinated action towards improvement of standards in science education. Production of educational materials, software and other learning materials, modernisation of laboratories, special summer schools or Enrichment programmes for talented students, provision of funds for the publication of journals and conduct of annual seminars were other important recommendations, he added.

Mr. Menon, further said that one of the important recommendations made by the Working Group on Mass Communication and Educational Technology was to create an awareness and propagation of a new culture of educational technology and a congenial academic atmosphere where committees of academics could pool their creative resources and produce materials with the help of media experts. The working group had also recommended that action should be taken to prepare plans for the production of educational software and its transmission through INSAT. He urged the educational planners to give proper attention to plan for educational software and to utilise effectively the time of one hour daily on the INSAT-1B. In this connection, the UGC has decided to set up Educational Media Centres with Audio-visual Centre in universities, he said.

The second session was on "Modern Approaches to Learning and Teaching". Prof. T.E. Shanmugam, Emeritus Professor of Psychology of Madras University chaired the session and conducted the proceedings. The first paper was by Prof. K.S. Shastri, Vice-Chancellor, Gujarat University. In his paper, 'Approaches to Teaching involving the use of Aids like TV, Computers and Satellites in both formal and non-formal modes of Education' Prof. Shastri observed that the latest inventions in the fields of Electronics, Computer Science and Satellite communication have virtually converted the world into veritable global

village and brought a far off classrooms, laboratories and play fields into our homes. He said that education is a form of communication in which a great deal of thought and planning have to be invested in this new information age. The Indian National Satellite (INSAT) has been launched. It will be available soon for university level transmissions so that unaccessible areas of education will be available to all, he added. (The satellite INSAT-1B has become fully operational now. It is going to be utilized to revolutionize the country's mass communication, meteorology and telecommunication networks. Elaborate plans are being worked out by UGC to enrich university education through INSAT-1B).

Prof. Shastri was happy to inform the participants of the seminar that the Gujarat University has recognised the imperative need to modify the techniques of education and decided, as part of this endeavour, to make use of the availability of transmitting to the satellite through the Earth station, proposed to be set up near Ahmedabad for enriching teaching in its distant affiliated colleges.

Following him, Dr. S. Rajaram presented his paper entitled 'Audio-visual Aids for Teaching Languages'. He observed that the use of audio-visual aids is comparatively a less attractive technique in language teaching in Indian universities. He attempted to evaluate critically the use of audio-visual aids in three major dimensions namely theoretical, practical and attitudinal. He said that various pedagogical theories now aim at making language teaching more communication oriented and make the learners more sensitive to the various social contexts. He pointed out that the use of audio-visual aids in these approaches is minimised and there is every likelihood of having a pedagogical danger of teaching an 'unauthentic' language if more audio-visual aids are put into use.

A surprising number of reasons for non-use of audio-visual aids in foreign language teaching in Indian schools and universities are practical and attitudinal, Dr. Rajaram continued. He said that it is not hard to know the awareness of the use of audio-visual aids among school and university teachers. Yet, they fail in effective implementation because of certain practical reasons such as i) poor response of students to audio-visual aids ii) lack of suitable instructional materials which can go along with audio-visual aids iii) lack of teacher training and iv) teachers' attitude toward the use of audio-visual aids. The teaching of Indian or foreign languages in the university departments is in the hands of language teachers whose training is in literature alone. They have the feeling, Dr. Rajaram observed that no professional training is necessary to teach a language as second or foreign language and it is far below the university standard to use audio-visual aids in adult language teaching.

Prof. S.K. Guplhati, IIT, New Delhi, presented his paper on 'Atterberg's limits for Laboratory demonstration'. Following him, Dr. V. Subramaniam, Principal, LNG College presented his paper entitled 'Specific Microteaching of English related to the on-going Micro teaching Programme in Tamil Nadu'. His paper consisted of three main sections, namely, the outline of the current teacher training situation in Tamil Nadu, general micro-teaching developments in Tamilnadu and need for a subject specific approach in English Language Teaching (ELT) in Tamilnadu within the existing framework. While reviewing the general microteaching developments in Tamilnadu, he said that there are encouraging activities in the university departments and the Government bodies showing interest in micro teaching-cum-interaction analysis. The Principals and teacher trainers accepted the microteaching approach as a desirable alternative to the ticklish problem of arranging trainees to

go on teaching practice during two long stretches of an academic year of ten months. The Directorate of Collegiate Education organised an in-service training programme with the collaboration of the British council and evinced keen interest in the outcome of the programme, he added.

While mentioning the place of bilingualism in microteaching context he stressed the important role to be played by the learner's mothertongue. He said that for at least sometime in the early years of teaching English as a second language the use of mother tongue as a 'meaning check' cannot be ruled out. However, the main issue should not be reduced to a mere ritual of a word for word or sentence by sentence 'translation' operation, he added. Dr. Subramaniam, at the end of his paper, made a few suggestions and alternatives to be adopted into the Indian educational system of Teacher training in colleges of Education.

The third session on Educational Technology was chaired by Dr. Ramesh Mohan, Director, Central Institute of English and Foreign Languages, Hyderabad. Dr. Wolfhart H. Anders from the university of Essen, FRG presented the German scene. Mentioning the dissonance between the established structures and the emerging new environment in the industrialized societies Dr. Anders asserted that the educational system will be fundamentally changed in content, methods and structure. He has analysed in his paper the trends towards the age of information and the impact of the new information and communication technologies on universities. He said that the universities in Germany are no more the store houses of knowledge and teachers, the dispensers. The television and personal computers have taken the role of the school now, he said.

Dr. C.H.K. Misra, from NCERT, New Delhi outlined the brief but active history of educational technology in the country mainly in the context of school education in his paper 'Trends of Research on Educational Technology'. Specific areas of Mass Media, Programmed learning, Microteaching, Distance teaching, Modular approach, Computer Assisted Learning etc., have been briefly discussed and some future facilities have been pointed out by him. He said that the studies in mass media instruction and distance teaching show a lack of coordination. While reviewing the research studies on mass media he mentioned that there is a lack of coordination between the production and implementation of mass media based instruction. He has explained the potential strength of programmed learning which has been established by countless research studies throughout the world within last two and a half decades. However, he asserted that those potential strengths have not been properly used. He concluded his paper urging the educational technologists to exploit the potentials of educational technology for creativity, problem solving, attitudinal change, personality development, leadership etc.

In her paper 'Trends in use of Programmed Learning Materials in Home Science in India and Abroad', Dr. (Mrs.) Kalpana Paralikar stressed the importance of PLMs in Home Science education elucidating a few practical problems. She said that the studies conducted in India and abroad, particularly in USA proved the use of PLMs in Home Science. A brief history of Programmed Learning Movement in India was also presented and evaluated in the light of new developments in Programmed Learning by the presenter. She concluded that with the explosion in student population as well as in knowledge in the basic sciences, arts and humanities as well as applied courses it is necessary to produce more and more PLMs in Home Science.

The fourth session in the forenoon of 23rd September was a Panel discussion on the use of INSAT in Indian education. Prof. Takwale moderated the discussion in which Dr. Anders, Dr. Jagdish Narain and Prof. Natarajan participated. The efforts that have been made so far for the use of INSAT for educational purposes and expectations were reviewed by the participated scholars. The role of University Grants Commission in this endeavour was commended by them. The UGC has a plan to establish Audio-visual centres with the view to prepare software programmes. It has been decided that the programme will be in English. The topics of national importance will be taken up on priority basis, Prof. Takwale said. He mentioned that a cell in UGC has already been created. He further said that this technology in modern education may change even the methodology in research. In this process, we should study the role of teachers and students and make sure that the technology is available in the near future to all the colleges in the country, he added.

While presenting his comments Dr. Jagdish Narain cautioned that known traditional methods with available hardware and software should not be thrown out in the developing new culture of technology. He said that the academicians should look upon INSAT basically as a 'communication system'.

Prof. Natarajan pointed out that the teacher is the key person to keep on communicating with the students. He is the important component in teaching. He, further emphasized the need to create environment for learning. He asserted that the INSAT can offer to us only the information storage and the success in our attempt will be in pooling all the institutions in one network for effective learning. He said emphatically that technology can supplement but cannot supplant the teachers. Explaining the various functions of media centres in his university, Dr. Anders too unequivocally asserted that the media cannot replace the teacher though they may take over some of the crucial roles the colleges are expected to play. Dr. Takwale wound up the discussion.

As the last part of the session, the following recommendations were made for future action.

1. All Indian Universities should be requested to set up study groups to discuss the problems relating to educational technology and the use of teaching methods both traditional and modern.

2. The Association of Indian Universities has to set up a task force at the national level. The objectives should be information storage and retrieval for strengthening higher education in India.

3. Non-formal education needs to be developed.

4. Similarly, mass media also needs to be developed and some kind of work should be undertaken by which each university can become a simple multimedia centre.

5. Facilities of INSAT 1B have to be exploited for educational purposes.

6. And, interest and awareness have to be generated among students. The study groups proposed to be set up in the universities should take care of such activities.

The recommendations were drafted by Dr. Jagdish Narain, Prof. V. Natarajan and Prof. Takwale and approved by all the participants of the seminar. It was followed by the valedictory function and Dr. P.S. Balasubramaniam from the Department of Education, Madras University presented the report of the seminar. Dr. (Mrs) E.G. Vedanayagam, Professor of Education proposed a vote of thanks.

She emphasized that the technology will not bear any fruit unless its facilities are extended to educate the rural masses as this subcontinent is solely constituted by villages.

An Exhibition of books on Teaching methods and Educational Technology by the kind courtesy of the American Centre Library and British Council, Madras and the Association of Indian Universities, New Delhi was arranged. There was film show on the theme of the seminar for all the three days.

The seminar was a great success in its attempt to evaluate the contemporary teaching methods and technologies in higher education without losing sight of the importance of traditional teaching methods. As it has been rightly pointed out by Dr. Jagdish Narain in the concluding session that we academicians cannot dispense with traditional teaching methods and look for a new teaching method as a total substitute. Known traditional methods with available hardware and software have to be developed further in the light of new technology. The academicians must be more concerned with the problem of accommodating the new technology in the traditional methods rather than trying to throw the traditional methods out to develop the philosophy of teaching.

Of course, there were indepth discussions on each paper presented by the participants. However, Dr. Anders paper had more discussions and as the result of which many Indian problems, the seminar originally intended to discuss were ignored. No doubt, those discussions have created feeling among the participants that the purpose of seminar had been side tracked and there was a shift from the intended purpose to the information and communication system of Federal Republic of Germany.

The list of participants of the seminar included 46 in total and of them about 25 were Vice-Chancellors of various Indian Universities. A very few among them attended the seminar and only Prof. Shastri, Vice-Chancellor of Gujarat University presented a paper. Prof. Gulhati, in one of the sessions, was critical about the role of Vice-Chancellors in the conducted seminar and said that the Vice-Chancellors should come forward to have a dialogue with the teachers about their practical problems in carrying out teaching programmes as envisaged by universities. There is a yawning gap between the theory and practice. It is evident in the case of implementation of technology for effective instruction in the university departments, he continued. He cited that the university which provided Over Head Projector does not provide pens for writing over the ascetate sheets of the projector. He has invited Vice-Chancellors to look into such anamolies in administration so that the expected educational goal can be achieved.

S. RAJARAM

Tamil University News

A Centre for Tribal Research at Uthagamandalam

Inauguration by
The Hon'ble Minister M. Vijayasarathy

On October 2, 1983, the birthday of the father of our nation, Mahatma Gandhi, a centre for Tribal Research was inaugurated at Uthagamandalam by Hon'ble M. Vijayasarathy, Minister for Adi Dravidar Welfare, Government of Tamil Nadu. In his inaugural address, the minister welcomed the establishment of the Tribal Research Centre and assured the Tamil University to allot twenty five to thirty acres of land for the location of the centre. The Minister lighted the 'Kuthuvilakku' to mark the functioning of the Centre.

Earlier, Dr. V.I. Subramoniam, Vice-Chancellor of the Tamil University, Thanjavur, stressing the need for the Tribal Research Centre said, "There are ten tribal research centres in various states like Andhra, Madhya Pradesh and Kerala. About 60% of the tribals in India belong to the Dravidian family. In Tamil nadu alone there are five lakhs of tribal people. But there is no research centre. The elements of Tamil culture depicted in ancient Tamil literature are found in the Tribal societies living not only in southern & northern states but also in countries like Pakistan, Afghanistan, Iran and Nepal. To describe these cultures and to reconstruct the Dravidian Culture a Tribal Research Centre has been set up by the Tamil University".

Thiru N. Ahimoolam, Collector, Nilgris district who presided over the function explained the steps taken by the Government for the uplift of the tribal people.

In the morning, Thirumathy Pelgin, a Toda women leader commenced the activities of the centre by lighting a lamp, in Underbell Bungalow, where the centre is temporarily located.

In addition to research, the centre will also have a museum. A small library has been set up in the centre.

Thiru A.K. Thanda, Director of Anthropology Centre, Calcutta and Dr. P.K. Misra, Director of Southern Region participated in the function.

Thiru B. Murugan, Special Officer, Tamil University, Prof. M. Basavalingam and Prof. K.K. Kumar and the Government officers made the function a grand success.

Seminar on Underwater Archaeology

"The reconnaissance of a 20 sq. mile area to locate Kaveripoompattinam conducted by the *National Institute of* Oceanography off the Poompuhar coast two years ago, has revealed very interesting results" said Thiru K.H. Vora in the seminar held on 16th, 17th and 18th October '83 in the Tamil University, Thanjavur. Thiru Vora was in charge of the study organised by the NIO and the Tamil Nadu Archaeology Department. He said a team of divers should be sent to identify exactly the objects buried at a depth of seven feet in the seabed. An interesting feature of the study was that the structures and objects were found in three clear-cut groups and different locations all within a distance of three km.

Thiru A. Subburaj, who was also a member of the study team, said ship wreckages *were also found during* a random survey. Dr. V.I. Subramoniam, Vice-Chancellor of the Tamil University, Thanjavur gave details about the proposal of the University to establish an Institute of Underwater Archaeology to establish He said that Rs.1.7 crores would be spent on it in a phased manner. Dr. B.H. Thirunaranan, presided over the seminar.

Thiru R. Srinivasan, former Deputy Director General of the Archaeological Survey of India, said a detailed and intensive study of the history of all ancient ports of Tamils revealed that several centuries ago the ports were buried under millions of tonnes of sand brought in by huge tidal waves. The five rathas and Arjuna's penance in Mahabalipuram had been buried under 40 feet of sand *before they were excavated.* Prof. K. Vellaivaranar, Dean, Faculty of Languages Tamil University said that there were references in Silappathikaram to the damage caused to Kaveripoompattinam by *tidal* waves.

Dr. S.R. Rao, marine archaeologist, who is also the head of the marine archaeology unit of the NIO said though archaeological research was started only three years ago in this country, the results achieved, especially at Dwaraka with minimum equipment and a very limited budget, had raised great hopes. The onshore excavation at Dwaraka on the Gujarat coast had provided a clue to the destruction of the port town by the sea more than three times during the last 3400 years. *Dr. Rao further said that* the NIO had submitted a project report to the Department of Science and Technology listing various priorities in the field of marine archaeology including training in *diving and recommending* a post-graduate course with emphasis on field work.

A number of Universities had shown interest in marine archaeology, and the Tamil and Jabalpur Universities had come up with concrete proposals. These Universities would get NIO's support. The Tamil University had shown interest in the investigation of Lemuria, a submerged Island between Mandapam and Sri Lanka, said Dr. S.R. Rao.

Thiru B. Narayana Babu and Thiru V. *Sivananda Venkat Rao officers of the* Archaeological Survey of India presented a paper on the Archaeological finds in about a dozen sites on Tamil Nadu coast. Thiru A. Subramaniam, Professor of Ancient *Industries had made the arrangements for* the seminar.

J.R. Jayachandran

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